BARCO PROJECTION SYSTEMS

BARCO REALITY SIM 6

R9040100 - R9040101
R9040110 - R9040111

OWNER'S MANUAL

Date : 21032000

Rev. : 00

Art. No. : R5976135

Federal communication commission (FCC statement)

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Instructions to the user :

if this equipment does cause interference to radio or television reception, the user may try to correct the interference by one or more of the following measures :

- Re-orientation of the receiving antenna for the radio or television.
- Relocate the equipment with respect to the receiver.
- Plug the equipment into a different outlet so that the equipment and receiver are on different branch circuits.
- Fasten cables connectors to the equipment by mounting screws.

Note :
The use of shielded cables is required to comply within the limits of Part15 of FCC rules and EN55022.

Due to constant research, the information in this manual is subject to change without notice.

Produced by BARCO NV, March 2000.

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1 PACKAGING AND DIMENSIONS

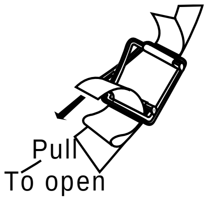
Projector Packaging

Way of Packaging

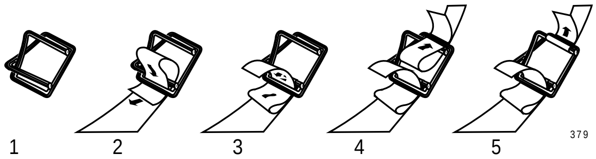
The projector is packed in a carton box. To provide protection during transportation, the projector is surrounded with foam. the package is the secured with banding and fastening clips.

To unpack

First release the fastening clips and remove the banding. Handle as shown in the drawing.



Take the projector out of its shipping carton and place it on a table.



Hint

Save the original shipping carton and packing material, they will be necessary if you ever have to ship your projector. For maximum protection, repack your projector as it was originally packed at the factory.

Contents of the complete unit (box) :

- 1 BARCOREALITY SIM 6 (weight ± 17 kg or ± 37.4 lbs)
- 1 remote control unit RCU + 2 batteries.
- 1 power cable with outlet plug type CEE7 or ANSI 73.11 .
- 1 owner's manual
- 1 safety manual

Lens Packaging

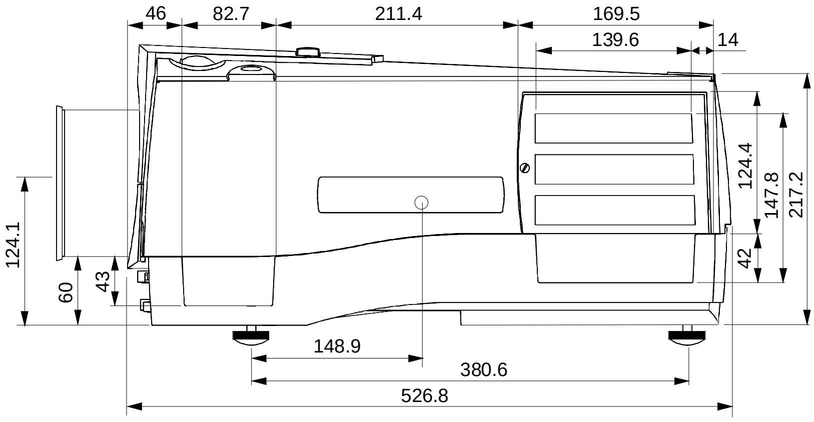
Way of Packaging

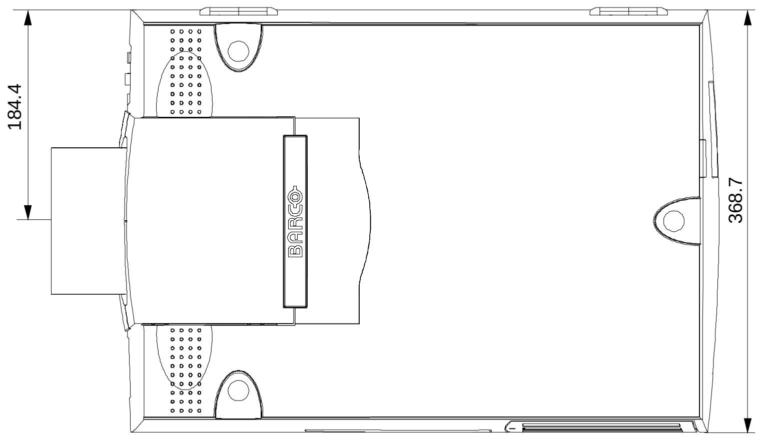
Lenses are supplied as an individual item.
They are packed in a carton.

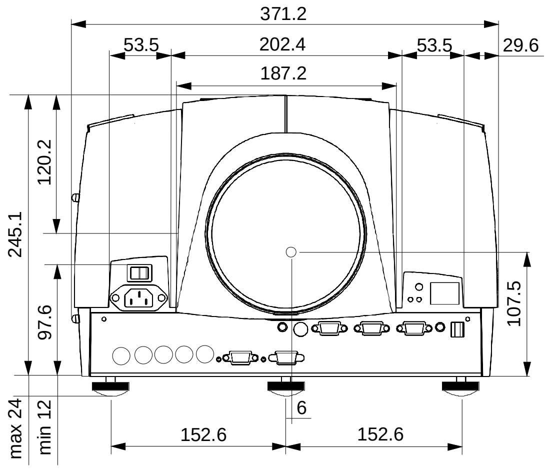
Projector Case

Dimensions

The dimensions are given in mm.
25.4 mm = 1"







2 INSTALLATION GUIDELINES

Safety warning

Before installing the projector, read first the safety instructions

Installation Guidelines

Ambient Temperature Conditions

Careful consideration of things such as image size, ambient light level, projector placement and type of screen to use are critical to the optimum use of the projection system.
Max. ambient temperature : 40 °C or 104 °F
Min. ambient temperature : 0 °C or 32 °F
The projector will not operate if ambient air temperature falls outside this range (0°C- 40°C or 32°F-104°F).

Environment

Do not install the projection system in a site near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity. Be aware that room heat rises to the ceiling; check that temperature near the installation site is not excessive.

What about ambient light ?

The ambient light level of any room is made up of direct or indirect sunlight and the light fixtures in the room. The amount of ambient light will determine how bright the image will appear. So, avoid direct light on the screen.
Windows that face the screen should be covered by opaque drapery while the set is being viewed. It is desirable to install the projection system in a room whose walls and floor are of non-reflecting material. The use of recessed ceiling lights and a method of dimming those lights to an acceptable level is also important. Too much ambient light will 'wash out' of the projected image. This appears as less contrast between the darkest and lightest parts of the image. With bigger screens, the 'wash out' becomes more important.
As a general rule, darken the room to the point where there is just sufficient light to read or write comfortably. Spot lighting is desirable for illuminating small areas so that interference with the screen is minimal.

Which screen type?

There are two major categories of screens used for projection equipment. Those used for front projected images and those for rear projection applications.

Screens are rated by how much light they reflect (or transmit in the case of rear projection systems) given a determined amount of light projected toward them. The 'GAIN' of a screen is the term used. Front and rear screens are both rated in terms of gain. The gain of screens range from a white matte screen with a gain of 1 (x1) to a brushed aluminized screen with a gain of 10 (x10) or more.
The choice between higher and lower gain screens is largely a matter of personal preference and another consideration called the Viewing angle.
In considering the type of screen to choose, determine where the viewers will be located and go for the highest gain screen possible.
A high gain screen will provide a brighter picture but reduce the viewing angle.
For more information about screens, contact your local screen supplier.

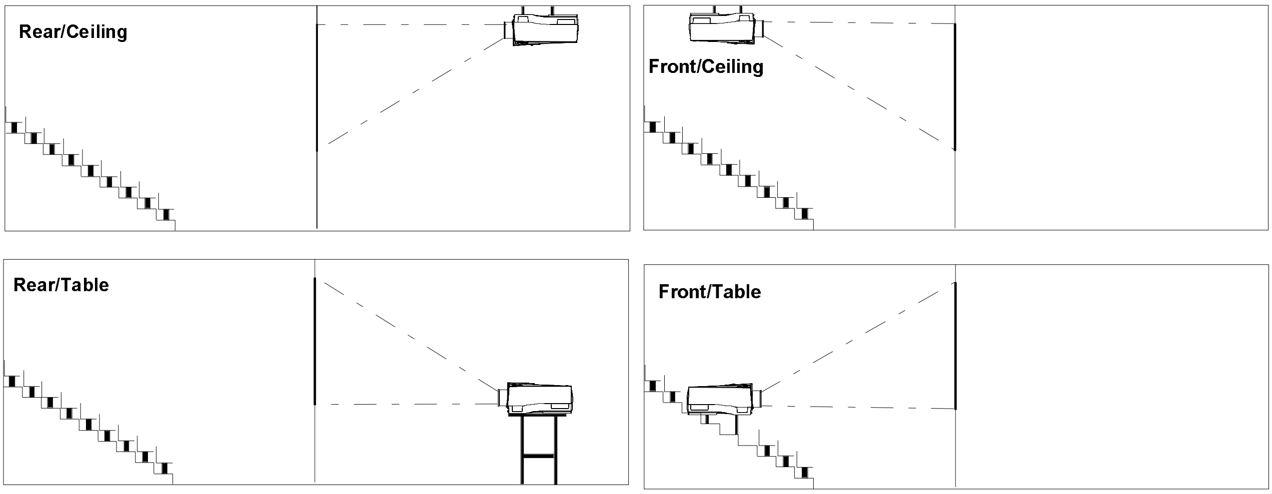
What image size? How big should the image be?

The projector is designed for projecting an image size (video) from 1.00m (3.3ft) to 6.00m (19.7ft) with a aspect ratio of 5 to 4.

Projector Configurations

Which configuration can be used ?

The projector can be installed to project images in four different configurations :
Front/table
Rear/table
Front/ceiling or
Rear/ceiling



Positioning the Projector

Drawing are given for a nominal lens position.

Definitions of the Abbreviation on drawings
B = Distance between ceiling and top of the screen or between floor and bottom of the screen.

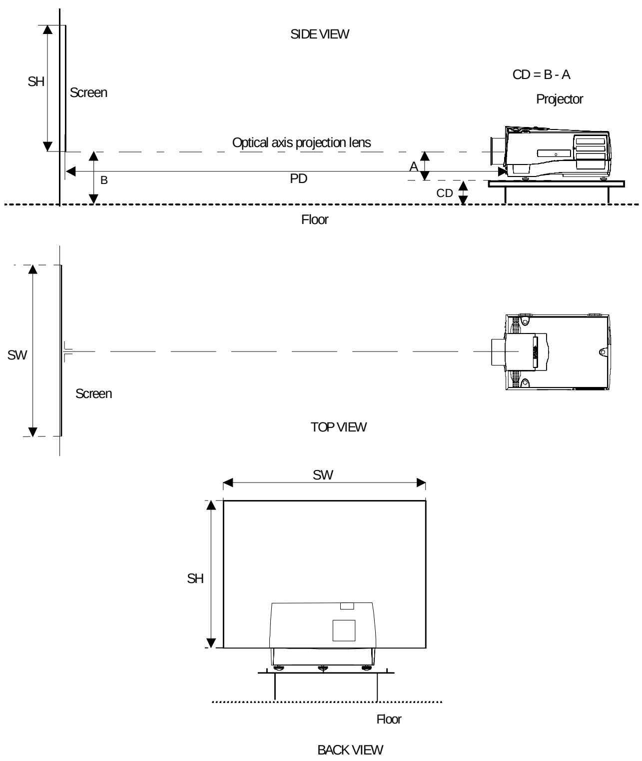
A = Correction value, distance between bottom side of projector (without feet) and middle of the lens. Value to be subtracted from B to obtain the correct installation position. (A value is a constant value for all screen widths and type of lenses, A = 124.1 mm or 4.89 inch)

CD = Total distance between projector and ceiling or projector and floor.

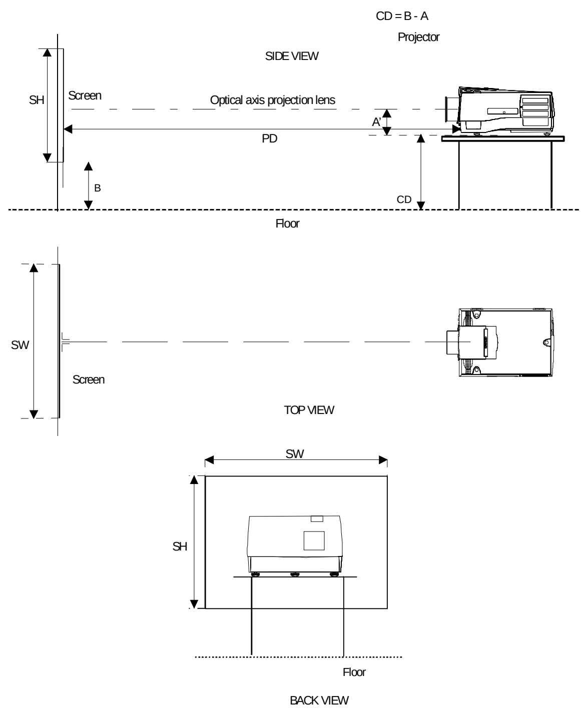
SW = Screen width.
SH = Screen height (image height).

PD = Projector Distance, distance between screen and projector.

OFF-Axis installation



ON-Axis installation



Lenses

Which lens has to be selected.

1 Determine the required screen width.

2 Determine the approximate position of the projector in the projection room with regard to the screen and measure the projector-screen distance (PD).

3 Use the lens formulas in appendix B to find the best corresponding PD with regard to the measured projector-screen distance for the required screen width.

The desired lens is determined.

Available lenses

The projector is supplied without any lens.
The following lenses are available, or will become available (contact a Barco service center) as an option :

Lenses	Standard version	Scheimpflug version
QGD(1.36-2.06:1)	R9829850	
QGD(7:1)	R9840030	R9840520
QGD(0.8:1) On-Axis lens for screen sizes from 40-70 inch diagonal	R9829800	R9840480
QGD(0.8:1) On-Axis lens for screen sizes from 84-120 inch diagonal	R9840040	R9840490
QGD(1.27:1)	R9840000	R9840500
QGD(2-2.8:1)	R9829790	
QFD(1.27:1)	R9840400	R9840600
QFD(1.4-2:1)	R9840380	R9840610
QFD(2.1-3:1)	R9840390	
QFD(2.5:1)	R9840290	R9840470
QFD(4.5-6:1)	R9840100	R9840460

Lens formulas to calculate the projector distance.

	Metric formulas (meter)	Inch formulas (inch)
QGD(1.36-2:1)	PD_{min}=1.371 x SW + 0.165 + 0.0083/SW PD_{max}=2.086 x SW + 0.153 - 0.015/SW	PD_{min}=1.371 x SW + 6.5 + 12.86/SW PD_{max}=2.086 x SW + 6.02 - 23.25/SW
QGD(7:1)	PD = 7.021 x SW + 0.047 + 0.0093/SW	PD = 7.021 x SW + 1.85 + 14.41/SW
QGD(0.8:1)	PD = 0.794 x SW - 0.048 + 0.0072/SW	PD = 0.794 x SW - 1.89 + 11.16/SW
QDG(1.27:1)	PD = 1.356 x SW - 0.065 + 0.0297/SW	PD = 1.356 x SW - 2.56 + 46.03/SW
QGD(2-2.8)	PD_{min} = 1.982 x SW + 0.476 - 0.388/SW PD_{max} = 2.778 x SW + 0.068 - 0.015/SW	PD_{min} = 1.982 x SW + 18.74 - 601.4/SW PD_{max} = 2.778 x SW + 2.68 - 23.25/SW
QFD(1.27:1)	PD = 1.33 x SW - 0.0195 + 0.0270/SW	PD = 1.33 x SW - 0.77 + 41.85/SW
QFD(1.4-2:1)	PD_{min}= 1.48 x SW - 0.0287 - 0.0215/SW PD_{max}= 2.25 x SW - 0.01 + 0.0195/SW	PD_{min}= 1.48 x SW - 1.30 - 33.32/SW PD_{max}= 2.25 x SW - 0.39 + 30.22/SW
QFD(2.1-3:1)	PD_{min}= 2.18 x SW - 0.1 + 0.055/SW PD_{max}= 2.97 x SW + 0.1 - 0.073/SW	PD_{min}= 1.48 x SW - 3.94 + 85.25/SW PD_{max}= 2.25 x SW + 3.94 - 113.15/SW
QFD (2.5:1)	PD = 2.486 x SW + 0.025 + 0.0215/SW	PD = 2.486 x SW + 0.98 + 33.32/SW
QFD(4.5-6:1)	PD_{min}= 4.39 x SW - 0.02 - 0.029/SW PD_{max}= 6.00 x SW + 0.15 - 0.107/SW	PD_{min}= 4.39 x SW - 0.79 - 44.95/SW PD_{max}= 6.00 x SW + 5.91 - 185.65/SW

Lens program to calculate the projector distance is available on the BARCO webside : http://www.barco.com/projecti/cusserv/index.htm

Remark :

In case of the Scheimpflug version lens, the formulas are valid in the normal position.

How to install the lens?

Installation of the lens for a standard SIM projector.
The installation of the scheimphlug lens is described in the corresponding lens kit.

1. Take the lens out of its packing material.
2. Open the lens cover of the projector by pivoting it up and take it off. image 1
3. Loosen the fixing screws (B) of the motor part (A) and flip the motor part up. image 2
4. Open both lens locks (C) by pulling them backwards (first, lift up a little before pulling backwards). image 2
5. Put the lens on the lens holder.
6. Fix the lens by closing the both locks (C) until they are secured. image 3
7. Flip the motor part back (A) (if a motorized lens is installed, be sure the teeth match the tooth profile (D) of the lens) and secure with the fixing screws (B). image 3
8. Re-install the lens cover. image 4

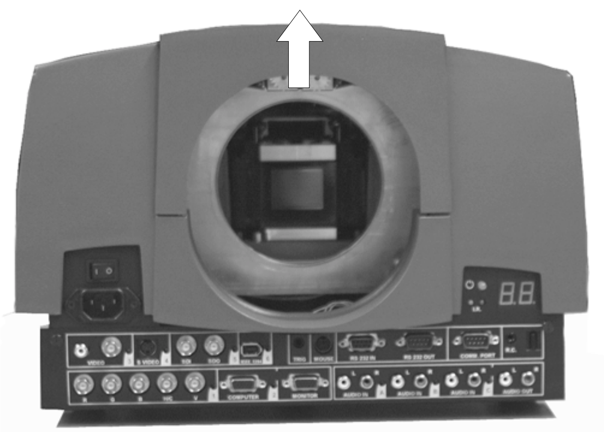


Image 1

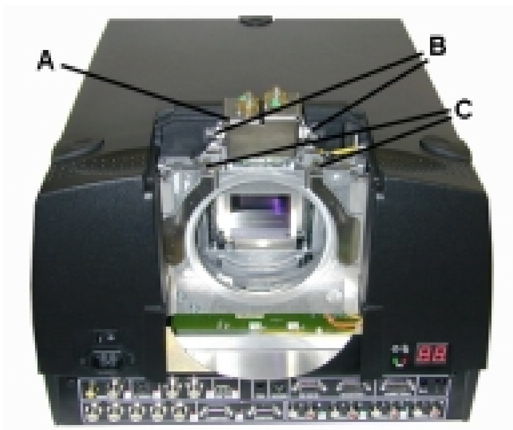


Image 2

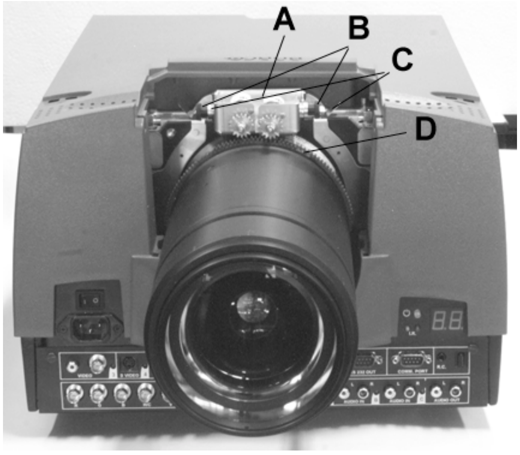


Image 3



Image 4

Cleaning the Lens

To minimize the possibility of damaging the optical coating or scratching exposed lens surface, we have developed recommendations for cleaning the lens. FIRST, we recommend you try to remove any material from the lens by blowing it off with clean, dry deionized air. DO NOT use any liquid to clean the lenses.

A Toraysee™ cloth is included with the lens kit.

Proceed as follows :

1. Always wipe lenses with a CLEAN Toraysee™ cloth.
2. Always wipe lenses in a single direction. Do not wipe back and forwards across the lens surface as this tends to grind dirt into the coating.
3. Do not leave cleaning cloth in either an open room or lab coat pocket, as doing so can contaminate the cloth.
4. If smears occur when cleaning lenses, replace the cloth. Smears are the first indication of a dirty cloth.
5. Do not use fabric softener when washing the cleaning cloth or softener sheets when drying the cloth.
6. Do not use liquid cleaners on the cloth as doing so will contaminate the cloth.

Order number for a new Toraysee™ cloth : R379058.
Other lenses can also be cleaned safely with this Toraysee™ cloth.

Battery installation in the RCU.

Inserting the Batteries.

Two batteries are packed together with the RCU. Before using your RCU, install first these batteries.

1 Remove the battery cover on the backside by pushing the handle a little towards the bottom of the RCU.
2 Lift up the top side of the cover at the same time.
3 Insert the batteries as indicated in the RCU.
4 Put the battery cover on its place.

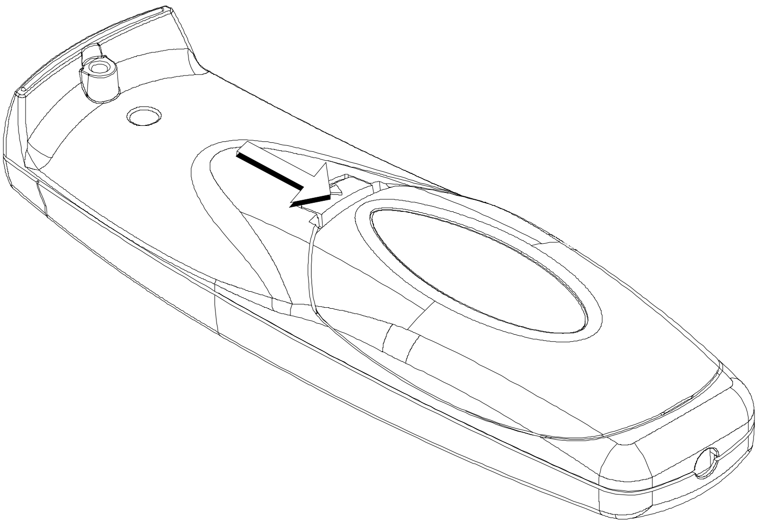
How to replace the batteries in the RCU ?

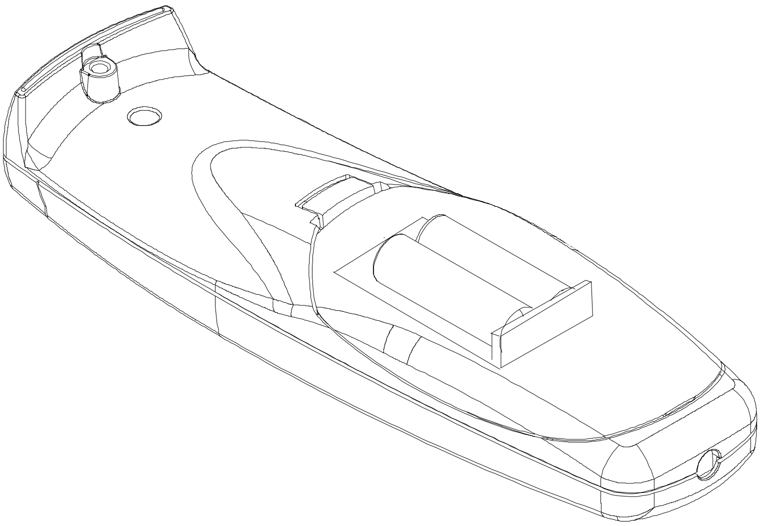
To replace the batteries :

1 Remove the battery cover on the backside by pushing the handle a little towards the bottom of the RCU.
2 Lift up the top side of the cover at the same time.
3 Push on the + side of the battery towards the - side
4 Lift up the battery at the same time.
5 Repeat for the second battery.
6 Insert the batteries as indicated in the RCU (battery type AA or LR6 or equivalent).
7 Put the battery cover on its place.

Note

Note, only important if more than one projector is installed in the room :
1. the common address can be zero (0) or one (1). The standard RCU are setup for common address zero. To change the common address of the RCU, contact a BARCO service center. If it is necessary to program the projector address into the RCU, see chapter 'Controlling'.
2. projector address has to be reprogrammed everytime the battery is changed, the RCU will always switch to the default address.



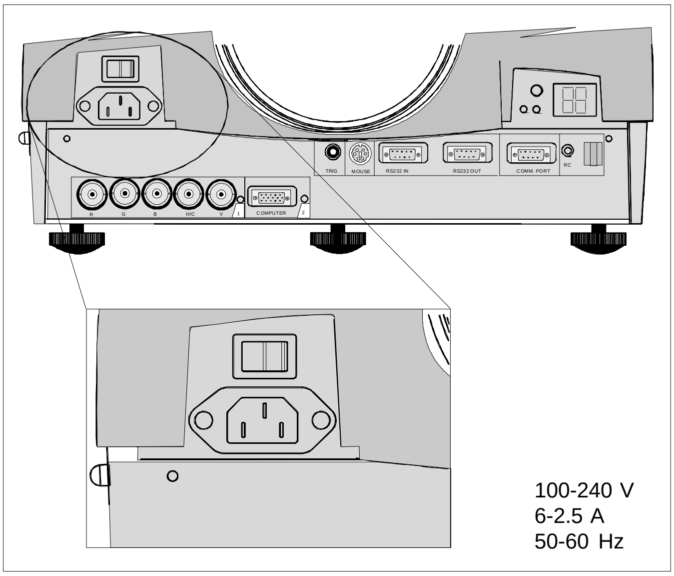


4 CONNECTIONS

Power connection to Projector

AC Power (mains) cord connection

Use the supplied power cord to connect your projector to the wall outlet. Plug the female power connector into the male connector at the front of the projector.
The power input is auto-ranging from **90 to 240 VAC**.



Fuses

Warning
For continued protection against fire hazard :
- refer replacement to qualified service personnel
- ask to replace with the same type of fuse.

Fuse type : T10 AH/250V

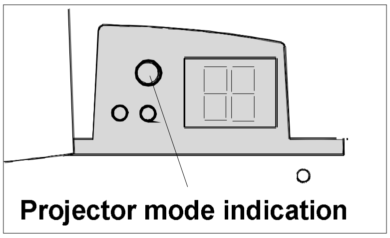
Switching on

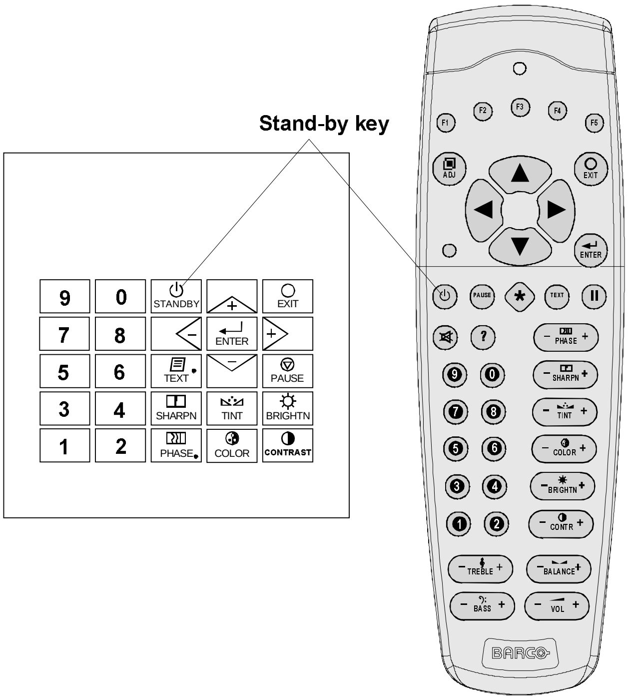
Use the power switch to switch on.

When '0' is visible, the projector is switched off.
When '1' is visible, the projector is switched on.

When switching on with the power switch, the projector starts in the stand by mode. The projector mode indication lamp is red.

To start image projection :
a. press the 'Stand by' button once on the local keypad or on the remote control. The projector mode indication lamp will be green.
b. press a digit button to select an input source. The projector mode indication lamp will be green.





Lamp Run Time

When the total run time of the lamp is X-30 hours or more, the following warning message will be displayed for 1 minute. This warning message will be repeated every 30 minutes. Press EXIT to remove the message before the minute is over.

Remaining
Lamp run time
20 h

When the total run time of the lamp is X hours or more, the following warning message, with the exact run time is displayed on the screen.

WARNING

Lamp run time is X hours
Operating the lamp longer
than X hours may damage
the projector.
Please replace the lamp

<ENTER> to continue

Lamp run time is X hours. Operating the lamp longer than X hours may damage the projector. Please replace the lamp.

When OK (ENTER) is pressed to go on, the warning will be repeated every 30 min.

The total lifetime of the lamp for a safe operation is X hours max. Do not use it longer. Always replace with a same type of lamp. Call a BARCO authorized service technician for lamp replacement.

Lamp Run Time Warning

Using a lamp for more than X hours is dangerous as the lamp could explode.

Switching to Stand-by.

When the projector is running and you want to go to stand-by, press the stand-by key for 2 seconds until the message 'Saving data, please wait' is displayed. Do not press any longer on the standby key otherwise the projector will restart.

Saving data, Please wait

Switching Off

To switch off:
- First press **STANDBY** key for 2 seconds. When the message 'Saving data, please wait' is displayed, do not press any longer on the standby key otherwise the projector will restart. Let cool down the projector at least 10 min.
- Switch off the projector with the power switch.

Switching to Stand-by Warning

When switching to standby, it is possible to restart within the first 5sec.. When not restarted within these first 5 sec., the projector waits for 1 min. to restart again. During this period the LED display will show a jumping square with a dash. After one minute, two dashes will be displayed and the projector can restart.

Input Source Connection

Input facilities

For a standard SIM6:
5-cable input
Computer
Optional inputs:
Video
S-Video
Serial digital input
IEEE 1394 (not yet active)

Input Selection

This can be manually or automatically.
When 'automatic' is selected in the Input slots menu, by starting up the projector, it searches for an input source by scanning the inputs one by one. If only one source is found, this source will be projected. If different sources are found, the priority is as follow (for a SIM6 with all input option) :

1. Video
2. S-Video
3. 5 Cable input
4. Computer input

SDI input and IEEE input are never automatically selected.

Note : When a RCVDS is connected to the projector,
the 'Automatic' selection is disabled.

Set up of the input selection

1 Press **ENTER** to start up the adjustment mode.
2 Press the cursor key ↑ or ↓ to select 'Installation' (menu 1).
3 Press **ENTER** to display the Installation menu.
4 Press the cursor key ↑ or ↓ to select 'Input Slots' (menu 2).
5 Press **ENTER** to display the Input slots menu.
6 Press the cursor key ↑ or ↓ to select 'Input Slots' (menu 3).
7 Press **ENTER** to toggle between [Manual] or [Automatic].
8 Press **EXIT** several times to leave the adjustment mode.

ADJUSTMENT MODE
Select a path from below :
RANDOM ACCESS
INSTALLATION
Select with ↓ or ↑
then <ENTER>
<EXIT> to return.

menu 1

INSTALLATION
INPUT SLOTS
Select with ↓ or ↑
then <ENTER>
<EXIT> to return.

menu 2

INPUT SLOTS
SLOT SELECTOR [Automatic]
x 1. RGB [HS&VS]
- 2. RGB [HS&VS]
- 3. VIDEO
- 4. S-VIDEO
- 5. DIGITAL INPUT
- 6. IEEE 1394
Select with ↓ or ↑
<ENTER> to toggle
<EXIT> to return.

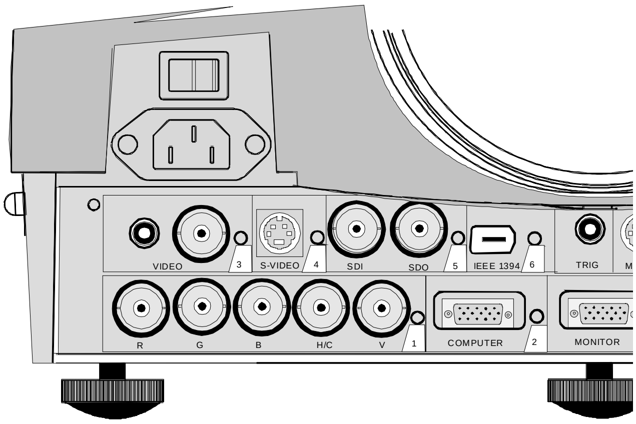
menu 3

Input Facilities, RCVDS05 connected.

When using a RCVDS05, it is recommended to use a 5-cable output module in the RCVDS. The outputs of this module have to be connected to the 5 cable input (slot 1) of the projector.
To switch the projector in the 5-cable mode see chapter 'Installation mode'.

5-cable Input Slot (slot 1)

Slot 1 has 5 BNC input terminals.



Which signals can be connected to the 5-cable input

The following signals can be connected to these BNC connectors :

Connector name	R	G	B	H	V
Input signal RGBHV	R	G	B	H	V
RGBS	R	G	B	S	-
RGsB	R	Gs	B	-	-
Composite Video[2]	-	Video	-	-	-
Super Video[2]	-	Y	-	-	C
Component Video - SS[2]	R-Y	Y	B-Y	S	-
Component Video - SOY[2]	R-Y	Ys	B-Y	-	-

[2] These source are optional for the BARCOREALITY SIM6.

How to select input Slot 1

Key in 1 on the RCU or the local keypad.

Configuration of the 5-cable input

The configuration has to be done on the 'Input slot' menu.

To change the signal format :

1 Press **ADJUST** or **ENTER** key to start up the Adjustment mode (menu 1).
2 Push the cursor key ↑ or ↓ to select *Installation*
3 Press **ENTER**.
4 Press the cursor key ↑ or ↓ to select 'Input Slots' (menu 2)
5 Press **ENTER**. The internal system will scan the inputs and displays the result in the 'Input Slots' menu.
6 Push the cursor key ↑ or ↓ to select the first slot (menu 3).
7 Press **ENTER** key to toggle the input signal priority.

ADJUSTMENT MODE

Select a path from below :

RANDOM ACCESS
INSTALLATION
SERVICE

Select with ↓ or ↑
then <ENTER>
<EXIT> to return.

menu 1

INSTALLATION

INPUT SLOTS
800 PERIPHIRAL
CONFIGURATION
OSD COLOR

Select with ↓ or ↑
then <ENTER>
<EXIT> to return.

menu 2

INPUT SLOTS

SLOT SELECTOR [Automatic]

x 1. RGB [HS&VS]
- 2. RGB [HS&VS]
- 3. VIDEO
- 4. S-VIDEO
- 5. DIGITAL INPUT
- 6. IEEE 1394

Select with ↓ or ↑
then <ENTER>
<EXIT> to return.

menu 3

Possible indication :

RGB [HS&VS] = RGB analog signals, separate sync is horizontal and vertical sync.
RGB CS = RGB analog signals, separate sync is composite sync.
RGB CV = RGB analog signals, separate sync is composite video or tri-level sync.
RGB-SOG = RGB analog signals, sync on green is composite sync.
²COMPONENT VIDEO - CS = separate sync is composite sync.
²COMPONENT VIDEO = component video with composite sync on Y or composite tri-level sync on Y.
²VIDEO
²S-VIDEO

² Optional for BARCOREALITY SIM6

Note for RCVDS05 users

When using an RCVDS 05 with a 5 cable output module, connect these 5 cables to this 5-cable input slot (slot1) of the projector. All sources of the RCVDS can now be accepted by the projector.

Audio connection (optional)

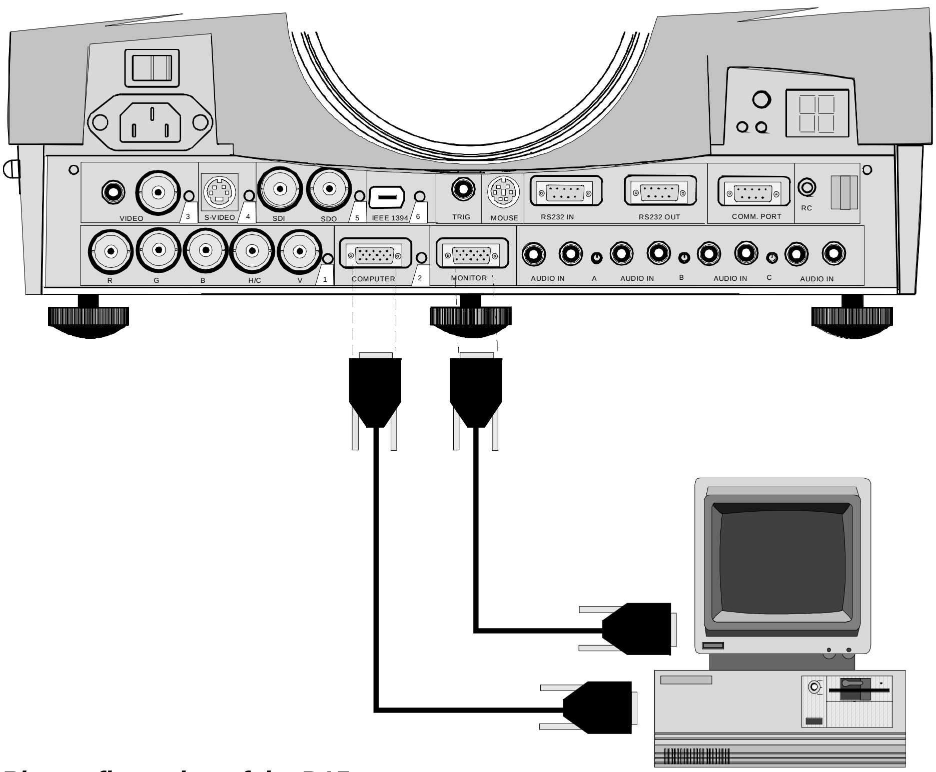
Connect the audio input to one of the 3 audio inputs.
See 'audio configuration' in this chapter for more explanation.

Computer input/Monitor output²

² Monitor output is optional for the SIM6.

Connect the output of the graphical card of the computer to the Computer input of the projector (connection < 60 cm) or insert an interface between the output of the computer and the input of the projector.

Connect the monitor of the computer to the monitor output of the projector.
This monitor output is only available when the computer input is used as input.



Pin configuration of the D15 connector :

1	RED	8	ground
2	GREEN	9	loop through to monitor
3	BLUE	10	ground
4	loop through to monitor	11	loop through to monitor
5	ground	12	loop through to monitor
6	ground	13	horizontal/composite sync
7	ground	14	vertical sync
		15	loop through to monitor

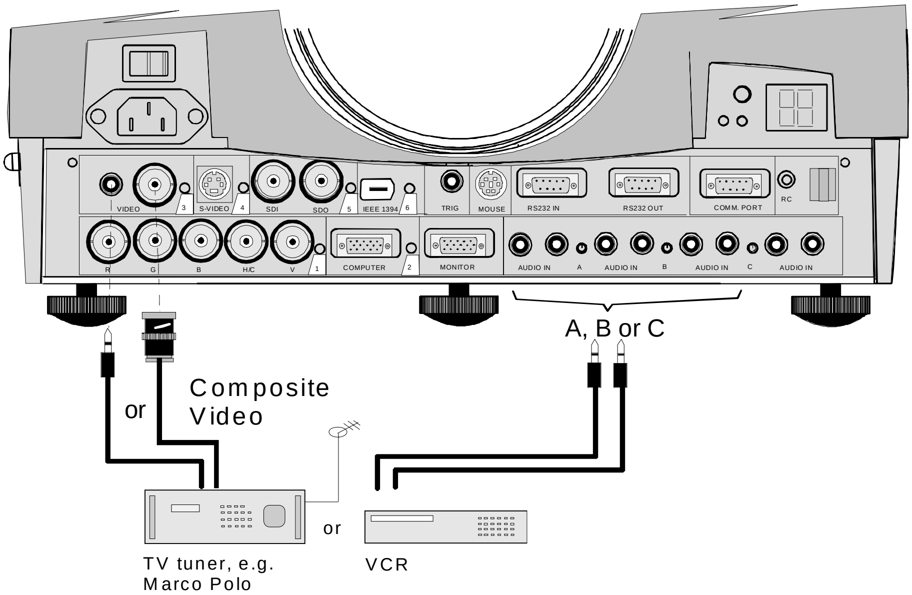
How to select Slot 2

Key in 2 on the RCU or the local keypad.

Video Input (Optional)

What can be connected

Composite video signals from a VCR, OFF air signal decoder, etc...
1 x BNC or cinch 1.0Vpp ± 3 dB
No loop through.



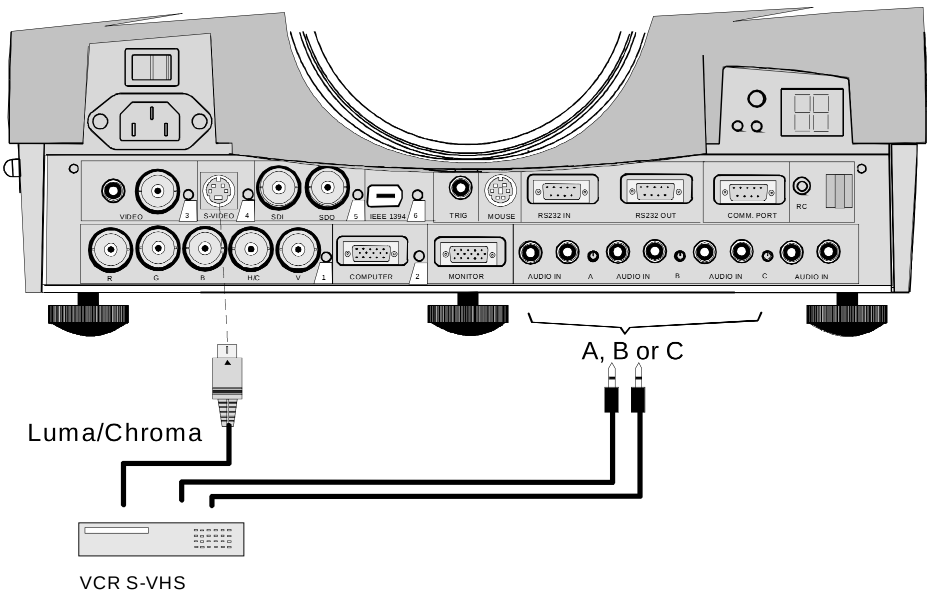
How to select Slot 3

Key in 3 on the RCU or the local keypad.

S-Video Input (optional)

What can be connected

Separate Y-luma/C-chroma signals for higher quality playback of Super VHS-signals.



Pin configuration mini DIN plug

1	ground luminance
2	ground chrominance
3	luminance 1.0Vpp ± 3 dB
4	chrominance 282 mVpp ± 3 dB

How to select Slot 4

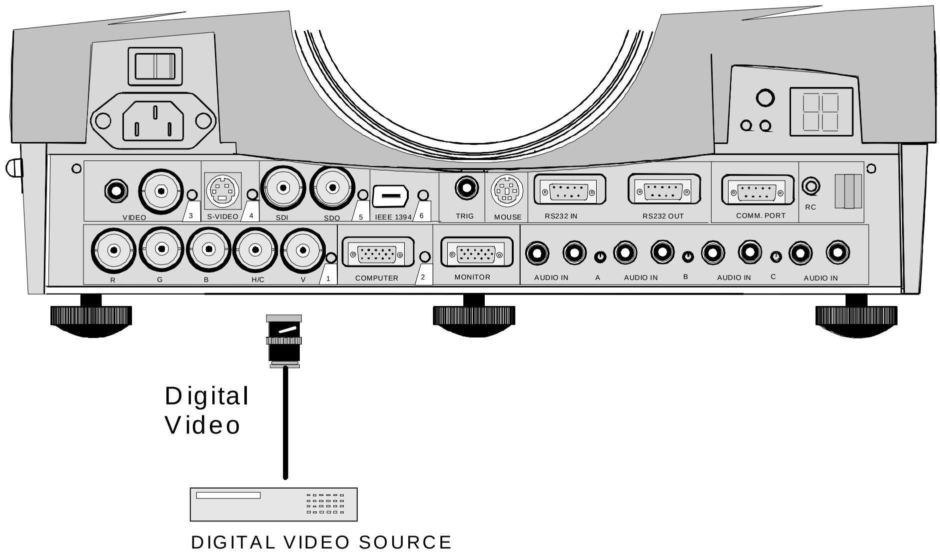
Key in 4 on the RCU or the local keypad.

Serial Digital Input / Serial Digital Output (optional)

What can be connected to this input ?

Full compatibility with digital Betacam, or digital video sources.
This avoids the need for analog processing anywhere in the video production chain and guarantees the ultimate image quality.

An active loop through of the SDI input signal is provided for monitoring or for double or triple stacking applications.



connections :

1 x BNC input and 1 x BNC output.
The input is always 75 W terminated. The output impedance of the SDO is 75 W.

How to select Slot 5

Key in 5 on the RCU or the local keypad.

Note : When a RCVDS05 is connected to the projector, the SDI input is available by keying in 85 on the RCU.

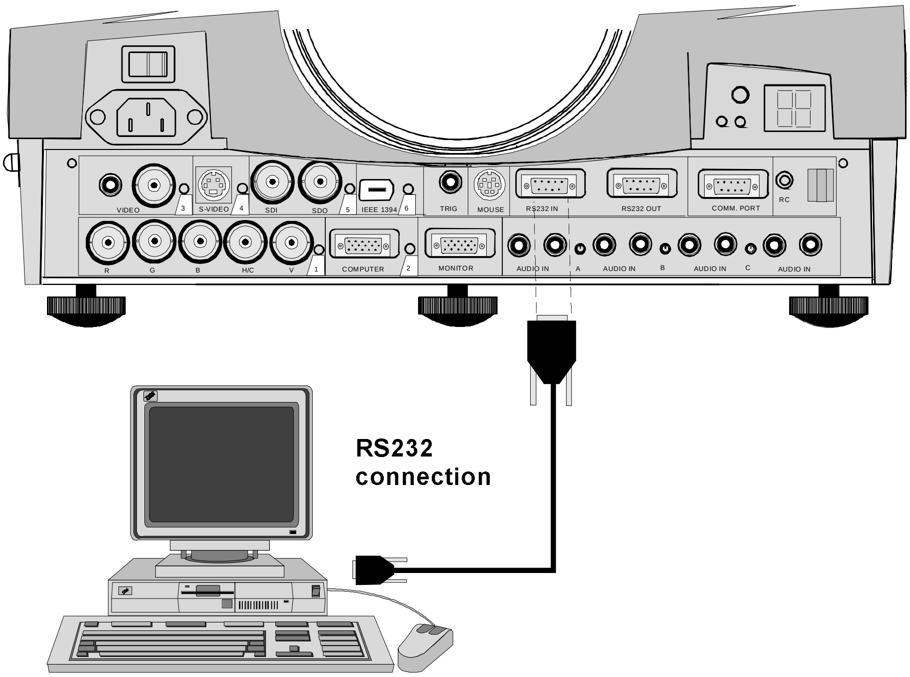
IEEE 1394 Input

Input not yet implemented.

RS232 Connection

RS232 in / RS232 out

To connect a Computer, e.g. IBM PC (or compatible), Apple Macintosh to the RS 232 input of the projector to allow communicate between the computer and the projector.



Applications :

a) remote control :
- easy adjustment of projector via IBM PC (or compatible) or MAC connection.
- allow storage of multiple projector configurations and set ups.
- wide range of control possibilities.
- address range from 0 to 255.

b) data communications :
- sending data to the projector or copying the data from the projector to a hard memory device (hard disc, floppy, etc.).

Set up of the Baud Rate for Communication with a Computer :

See *'Change Baudrate PC'* in chapter *'Service mode'*.

Communication port for communication with peripherals

Configurations of the port.

This port can be configured to accept PPM or RC5 coded signals.
To change the port configuration see 800 Peripherals in Chapter Installation.

Connecting a RCVDS 05 to the projector.

- Up to 20 inputs with the RCVDS 05 and 90 inputs when RCVDS's are linked via the expansion module.
- Serial communication with the projector.
- Remote control buttons on the RCVDS to control the projector (source selection and analog settings).
- The selected source number will be displayed on a 2 digit display and the selected input module will be indicated with a LED on the rear.

For more information about the use of the RCVDS 05, consult the owner's manual of the RCVDS05.

TRIG Output

5 V output voltage to trigger an external device (max. 10mA).
This voltage is available when the projector is on.

MOUSE

When available ?

Mouse function is only available with the Executive Remote Control (Order number : R9829960). The computer can then be controlled via the projector.

How to activate ?

To activate this mouse function, handle as follow :

1 Start up your computer with the computer mouse plugged in. The mouse driver should be loaded.
2 Unplug the computer mouse without switching off the computer.
3 Plug the delivered cable between the mouse input of the computer and the mouse output of the projector.
4 Computer can now be controlled with the executive remote control.
For more information about the mouse buttons or functions, consult the owner's manual of the Executive Remote Control.

Warning : before swithing off, disconnect first the mouse cable.

Available Mouse Functions

Left click, right click or double click are the same as for a traditional mouse.
For Click and drag : push for 2 seconds on the left (right) mouse button, the move the mouse arrow with the mouse navigator and click again very short on the left (right) mouse button to interrupt the drag function.

Audio Connections (optional)

What is available ?

Three audio inputs and one audio output are available. Each audio input can be associated with an input source using the control software of the projector. e.g. source 1 can be locked with audio input B.

How to lock an audio input ?

Locking an audio input to a source input :

1 Press **ENTER** to start up the adjustment mode.
2 Press the cursor key ↑ or ↓ to select 'Random Access'.
3 Press **ENTER** to display the Random Access menu.
4 Press the cursor key ↑ or ↓ to select 'Audio Tuning'.
5 Press **ENTER** to display the Audio Tuning menu.
6 Press the cursor key ↑ or ↓ to select 'Video-Audio lock'.
7 Press the cursor key ← or → to select the desired source input.
8 Press **ENTER** to toggle between [A], [B] or [C].
9 Press several times **EXIT** or **ADJUST** to return to the operational mode.

See also 'Video - Audio lock' in chapter 'Random Access Adjustment Mode'.

5 GETTING STARTED

Remote Control & Local Keypad

How controlling the projector ?

The projector can be controlled by the local keypad or by the remote control unit.

Location of the local keypad

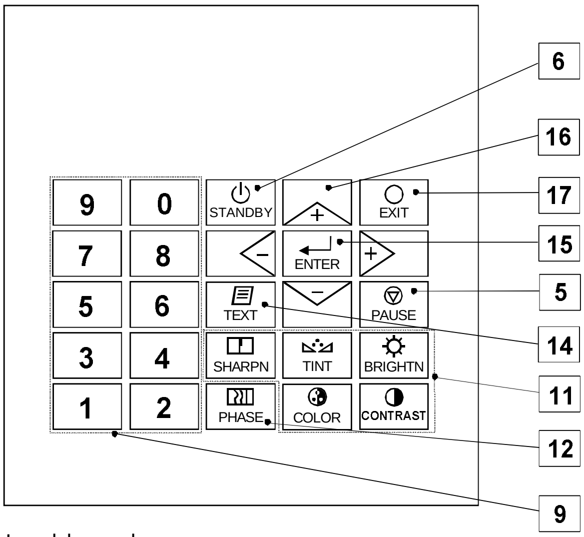
The local keypad is located on the backside of the projector.

Remote control

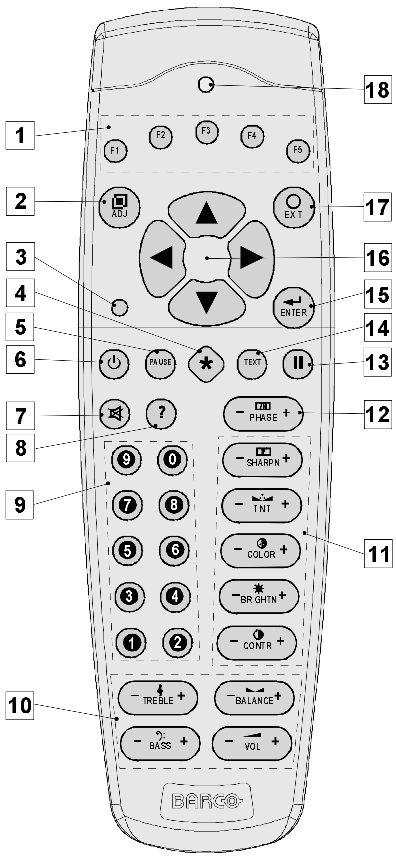
This remote control includes a battery powered infrared (IR) transmitter that allows the user to control the projector remotely. This remote control is used for source selection, control, adaptation and set up. It includes automatic storing of :
- picture controls (Brightness, Sharpness...)
- settings

Other functions of the remote control are :
- switching between standby and operational mode.
- switching to "pause" (blanked picture, full power for immediate restarting)
- direct access to all connected sources.

Overview of Terminology



Local keypad



Remote Control (RCU)

1 **Function keys :** user programmable keys with functions for direct access.

2 **ADJ.** : ADJUST key, to enter or exit the adjustment mode.

3 **A**ddress key (recessed key), to enter the address of the projector (between 0 and 9). Press the recessed address key with a pencil, followed by pressing one digit button between 0 and 9.

4 **Selection key (*)** : to direct access the zoom/focus/shift functions.

5 **PAUSE** : to stop projection for a short time, press 'PAUSE'. The image disappears but full power is retained for immediate restarting.

6 **STBY** : stand-by button, to start projector when the power switch is switched on and to switch off the projector without switching off the power switch.

Attention : Switching to Stand-by.
When the projector is running and you want to go to stand-by, press the stand-by key for 2 seconds until the message 'Saving data, please wait' is displayed. Do not press any longer on the stand-by key otherwise the projector will restart.

7 **Mute :** to interrupt the sound reproduction.

8 **? :** not implemented.

9 **Digit buttons** : direct input selection.

10 **Audio controls** : use these buttons to obtain the desired sound level.

11 **Picture controls** : use these buttons to obtain the desired picture analog level.

12 **PHASE** : used to remove the instability of the image.

13 **FREEZ** : press to freeze the projected image.

14 **TEXT** : when adjusting one of the image, e.g. controls during a meeting, the displayed bar scale can be removed by pressing 'TEXT' key first. To re-display the bar scale on the screen, press 'TEXT' key again.

15 **ENTER** : to start up the adjustment mode or to confirm an adjustment or selection in the adjustment mode.

16 **Cursor Keys** (on RCU) or **'+' and '-' keys** (cursor keys) on the local keypad : to make menu selections when in the adjustment mode or to zoom/focus when the direct access is active.

Comparision between the cursor keys and the use of the '+' and '-' keys on the local keypad :

RCU	=	local keypad
cursor key up	=	'+' key up
cursor key down	=	'-' key down
cursor key right	=	'+' key right
cursor key left	=	'-' key left

Use the **'+' and '-' keys** (cursor keys) : to increase or decrease the analog level of the image controls when they are first selected.

17 **EXIT** : to leave the adjustment mode or to scroll upwards when in the adjustment mode.

18 **RC operating indication** : lights up when a button on the remote control is pressed. (This is a visual indicator to check the operation of the remote control)

Operating the Projector

Switching on

Use the power switch to switch on.

When '0' is visible, the projector is switched off.
When '1' is visible, the projector is switched on.

When switching on with the power switch, the projector starts in the stand by mode. The projector mode indication lamp is red.

To start image projection :
a. press the 'Stand by' button once on the local keypad or on the remote control. The projector mode indication lamp will be green.
b. press a digit button to select an input source. The projector mode indication lamp will be green.

Lamp Run Time

When the total run time of the lamp is X-30 hours or more, the following warning message will be displayed for 1 minute. This warning message will be repeated every 30 minutes. Press EXIT to remove the message before the minute is over.

Remaining
Lamp run time
20 h

When the total run time of the lamp is X hours or more, the following warning message, with the exact run time is displayed on the screen.

Lamp run time is X hours. Operating the lamp longer than X hours may damage the projector. Please replace the lamp.

WARNING

Lamp run time is X hours
Operating the lamp longer
than X hours may damage
the projector.
Please replace the lamp

<ENTER> to continue

When OK (ENTER) is pressed to go on, the warning will be repeated every 30 min.

The total lifetime of the lamp for a safe operation is X hours max. Do not use it longer. Always replace with a same type of lamp. Call a BARCO authorized service technician for lamp replacement.

Lamp Run Time Warning

Using a lamp for more than X hours is dangerous as the lamp could explode.

Switching to Stand-by.

When the projector is running and you want to go to stand-by, press the stand-by key for 2 seconds until the message 'Saving data, please wait' is displayed. Do not press any longer on the standby key otherwise the projector will restart.

Saving data, Please wait

Switching Off

To switch off:
- First press **STANDBY** key for 2 seconds. When the message 'Saving data, please wait' is displayed, do not press any longer on the standby key otherwise the projector will restart. Let cool down the projector at least 10 min.
- Switch off the projector with the power switch.

Switching to Stand-by Warning

When switching to standby, it is possible to restart within the first 5sec.. When not restarted within these first 5 sec., the projector waits for 1 min. to restart again. During this period the LED display will show a jumping square with a dash. After one minute, two dashes will be displayed and the projector can restart.

Quick Set Up Adjustments

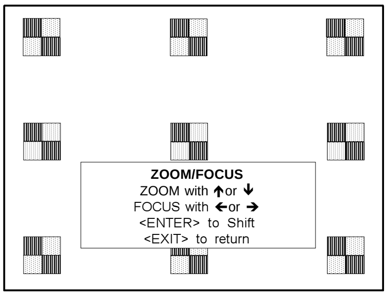
Quick Lens Adjustment

For a quick lens set up and image shift, press the Selection key (* key), to display inmediately the zoom/focus menu.
Only available for motorized lenses.

For a quick set-up, handle as follow :

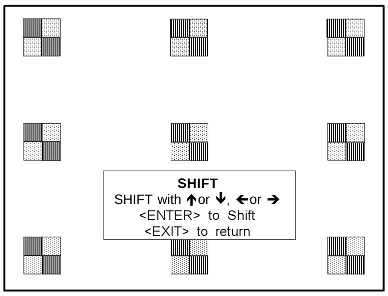
A. Zoom/focus of the lens.

1 Press the Selection key.
  The zoom/focus menu will be displayed.
2 Push the cursor key ↑ or ↓ to zoom and ← and → to focus the image.
3 When finished, press **EXIT** key to return or **ENTER** to continue to the shift adjustment.



B. Image shift

1 Press the selection key.
  The zoom/focus menu will be displayed.
2 Press **ENTER**. The shift menu will be displayed.
3 Push the cursor key ↑ or ↓ to shift the image up or down and ← and → to shift the image left and right.
4 When finished, press **EXIT** key to return or **ENTER** to continue to zoom/focus.

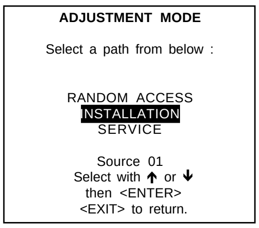


Quick On Screen Color change

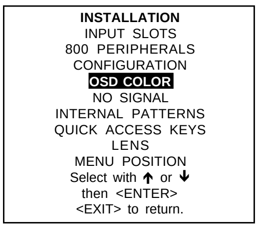
For quick change of the the on-screen color of the highlighted items.
The highlighted items on the menus can be displayed in red, green or yellow.

For a quick set-up, handle as follow :

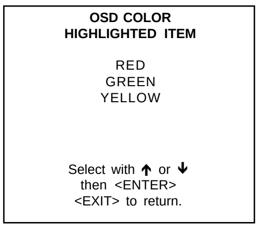
1 Press **ENTER** to start up the adjustment mode.
2 Push the cursor key ↑ or ↓ to highlight 'Installation'.
3 Press **ENTER** to display Installation menu.
4 Push the cursor key ↑ or ↓ to highlight 'OSD Color'.
5 Press **ENTER** to display the OSD color menu.
6 Push the cursor key ↑ or ↓ to highlight the desired color.
7 Press **ENTER** to select.



menu 1



menu 2

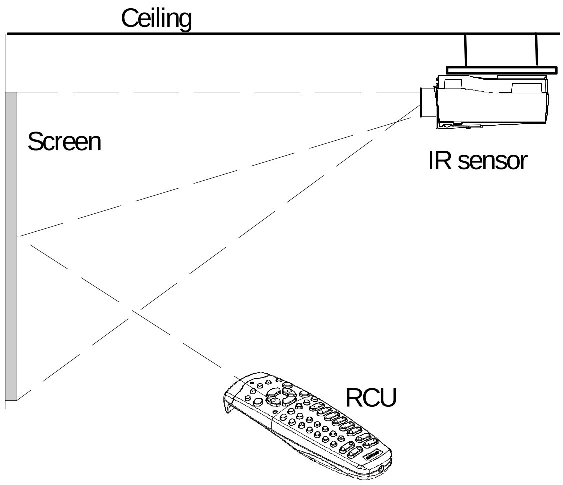


menu 3

Using the RCU

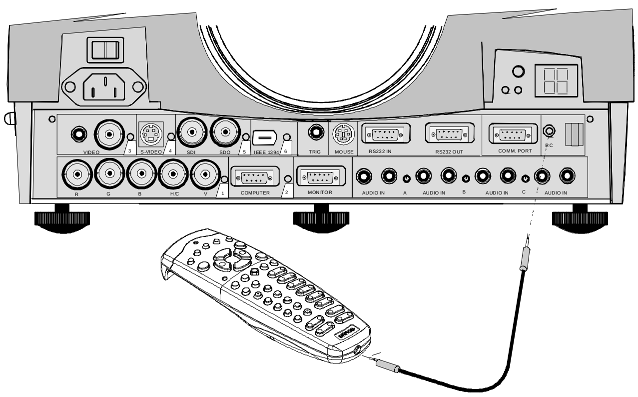
Pointing to the reflective screen

Point the front of the RCU to the reflective screen surface.



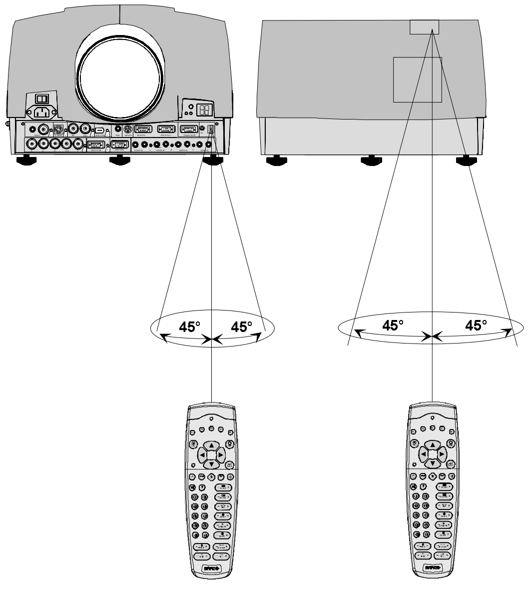
Hardwired Remote Input.

Plug one end of the remote cable in the connector on the bottom of the RCU and the second side in the connector in the front panel of the projector labelled 'RC'.



Directly to one of the IR sensors of the projector.

When using the wireless remote control, make sure you are within the effective operating distance (30m, 100ft in a straight line). The remote control unit will not function properly if strong light strikes the sensor window or if there are obstacles between the remote control unit and the projector IR sensor.



Projector address

Why a projector address ?

As more than one projector can be installed in a room, the seperate projector should be seperately addressable wiht an RCU or computer. There for each projector has its own address.

Set up an Individual Projector Address.

The set up of a projector address cab be done via de software.
See 'Change projector address' in chapter 'Service mode'.

How to control the projector or projectors.

Every projector requires an individual address between 0 and 255 which can be set in the Service mode.
When the address is set, the projector can be controlled now:

- RCU for addresses between 0 and 9.
- computer, e.g. IBM PC (or compatible), Apple MAC, etc. for addresses between 0 and 255.

Note : a projector will respond to a RCU set to the common address ('0' or '1') regardless of what address is set in the projector itself.

Before using the RCU.

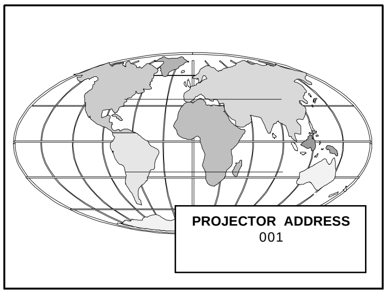
The RCU is default programmed with address 0 or 1, 'common address'. With that 'common address' programmed into the RCU, every projector, without exception will listen to the commands given by this RCU. If it is necessary to control a specific projector, than enter the projector address into the RCU (only when that address is between 0 and 9). The projector with the corresponding address will listen to that specific RCU.

Common Address

Every projector has a common address '0' or '1'. The choice between '0' and '1' can be selected in the Service mode.

Displaying the Projector Address on the Screen.

Press the **ADDRESS** key (recessed key on the RCU) with a pencil. The projector's address will be displayed in a 'Text box'. This text box disappears after a few seconds.



To continue using the RCU with that specific address, it is necessary to enter the same address with the digit buttons (address between 0 and 9) within 5 seconds after pushing the address key. For example : if the Address key displays projector address 003, then press "3" digit button on the RCU to set the RCU's address to match the projector's address. Do not press 003 digits. This will address the remote control to '0' and control all projectors in the room.
If the address is not entered within 5 seconds, the RCU returns to its default address (zero address) and control all projectors in the room.

How to Program an Address into the RCU?

Press the **ADDRESS** key (recessed key on the RCU) with a pencil and enter the address with the digit buttons within 5 seconds after pushing the address key. That address can be any digit between 0 and 9.

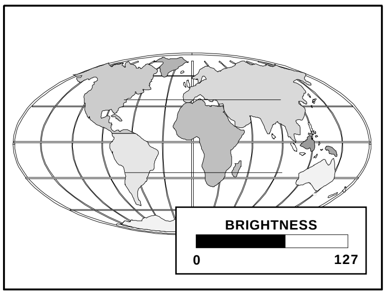
Controlling the Projector

Input Selection

Key in the corresponding slot number with the digit keys on the RCU. The selected source will be displayed.

Picture controls.

When an image control is pressed, a text box with a bar scale, icon and function name of the control, e.g. 'brightness...' appears on the screen (only if text is ON). See example screen. The length of the bar scale and the value of the numeric indication indicate the current memorized setting for this source. The bar scale changes as the control stick on the RCU is pressed or the + or - buttons on the local keypad.



Brightness Control

A correct *'brightness'* setting is important for good image reproduction.
Use the + button for a higher brightness.
Use the - button for a lower brightness.

Contrast Control

A correct 'contrast' setting is important for good image reproduction.
Adjust the contrast to the level you prefer, according to room lighting conditions.
Use the + button for a higher contrast.
Use the - button for lower contrast.

Color Saturation
(optional)
Color saturation is only active for Video and S-Video. Adjust the color intensity of the picture.
Use the + button for richer colors.
Use the - button for lighter colors.

Tint Control
(optional)
Tint is only active for Video and S-Video when using the NTSC 4.43 or NTSC 3.58 system.
Use the + button
Use the - button.

Sharpness Control.

Use the + button for a sharper picture.
Use the - button for a softer picture.

Phase Control

Use the control disc to adjust the phase.

Freez key

Press Freez to freeze the displayed image.

Sound Controls (optional).

When a sound control is pressed, a text box with a bar scale, icon and function name of the control, e.g. 'volume...' appears on the screen (only if text is ON). See example screen. The length of the bar scale indicates the current memorized setting for this source. The bar scale changes as the + or - buttons of the control are pressed.
The picture controls can only be adjusted with the RCU.

Volume Control

Volume control adjusts the volume.
Use the + button for a higher volume.
Use the - button for a lower volume.

Bass Control

Bass control adjusts the bass level (low tones).
Use the + button for more low tones.
Use the - button for less low tones.

Treble Control

Treble control adjusts the treble level (high tones).
Use the + button for more high tones.
Use the - button for less hight tones.

Balance Control

Is only effective if a external amplifier with loudspeakers is connected to the audio output.
The balance control adjust the sound level between the left and the right box.
Use the + button for a higher sound level on the right box than on the left one.
Use the - button for a higher sound level on the left box than on the right one.

The Pause key.

When the Pause key is pressed, the image projection is stopped, a blue screen will be displayed and the projector remains with full power for immediate restart. The sound is not interrupted.
The display on front of the projector will show a "P".
To restart the image :

1 press pause key,
2 press exit key or
3 select a source number.

The Selection key.

See Quick Lens Adjustment in this chapter;

6 START UP OF THE ADJUSTMENT MODE

Adjustment Mode

Start Up

All source parameters, picture and audio tuning, and geometry are made while in the 'Adjustment Mode'. Press the **ADJUST** or **ENTER** key to enter the 'Adjustment mode'.

You are now in the 'Adjustment Mode'.

1 The cursor key (RCU) or '+ or '-' keys (local keypad) are used to make menu selections and also for adjustments.
2 The **ENTER** and **EXIT** keys are used to move forward and backward through the menu structure.
3 The **ADJUST** key can be used to terminate the adjustment mode while any path selection menu is displayed.

ADJUSTMENT MODE

Select a path from below :

RANDOM ACCESS
INSTALLATION
SERVICE

Source 01
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

Possible Paths

There are 3 possible paths to follow once in the Adjustment Mode. They are :

Installation - Installation should be selected if a new input module is installed or a new source is connected to an existing input module. Also when the projector is relocated in a new configuration.

Random Access - Random Access should be selected to set up a new source.

Service - Service should be selected if the user intends to change general settings such as password, language, address, etc.or some service actions as reset lamp run time, panel adjustments, etc. or get set-up information.

Password Protection

Some items in the Adjustment mode are password protected. While selecting such an item, the projector asks to enter your password (Password protection is only available when the password strap on the controller module is ON, call an authorised service center to change the position of the password strap).

Entering the Password

PASSWORD

ENTER PASSWORD

Use numeric keys

<EXIT> to return

The password contains 4 digits.

Enter the digits with the numeric keys.
Example : 2 3 1 9

The first digit position is highlighted. Enter with the numeric keys. The highlighted square jumps to the next position. Continue until all 4 digits are filled in.

When your password is correct, you gain access to the selected item.
When your password is wrong. The error message "Invalid password" is displayed on the screen. Press **EXIT** to continue and to return to the Service menu.

Error

Invalid password

<EXIT> to return

Factory programmed password : **0 0 0 0**

Once the password is correctly entered, all other password protected items are accessible without re-entering the password.

Remark

When re-entering the Adjustment mode, it will be nessary to enter the password again when selecting a password protected item.

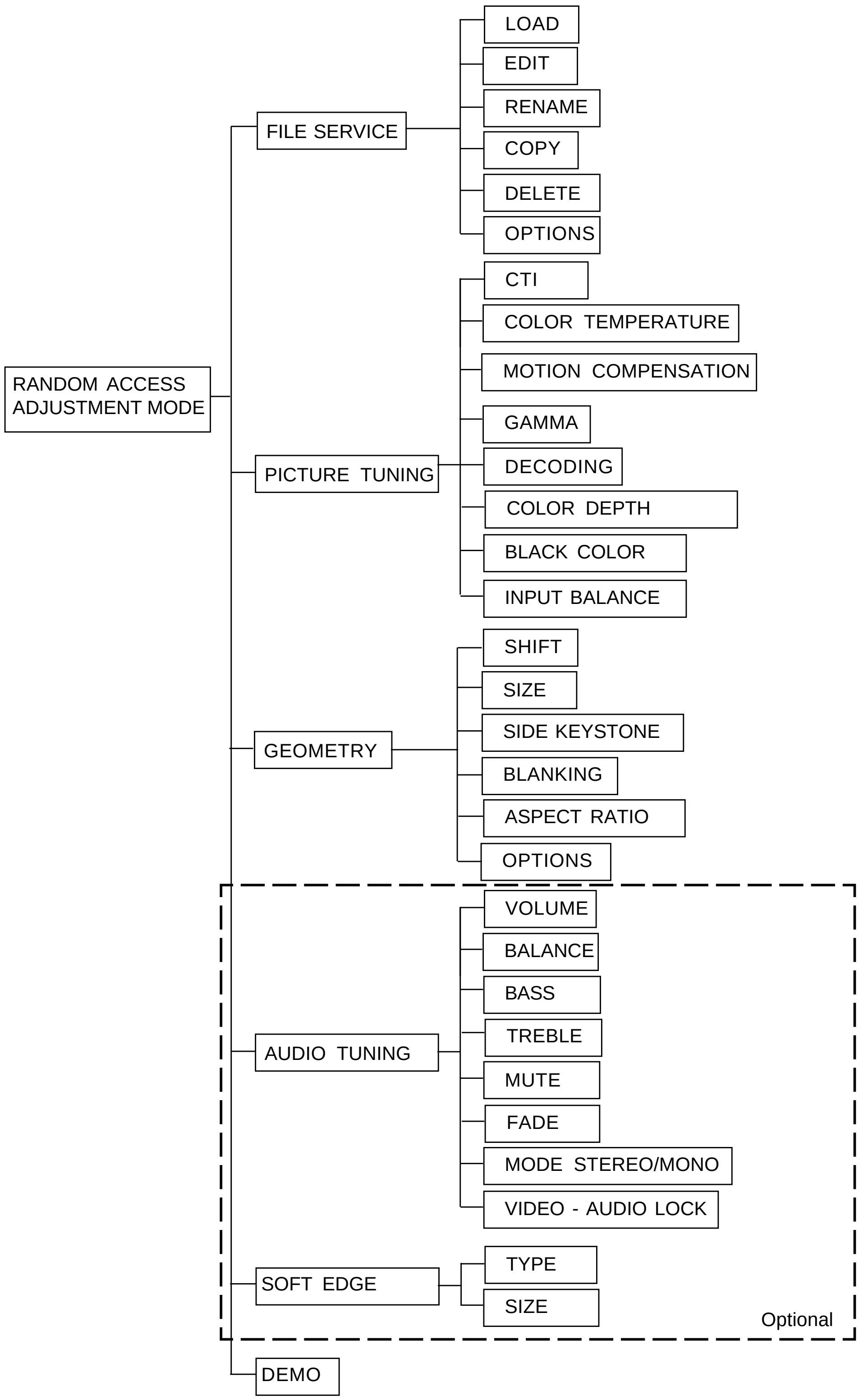
Setting up your own password

See 'Changing password' in the Service mode.

7 RANDOM ACCESS ADJUSTMENT MODE

Random Access Mode

Overview Flowchart



Starting Up

Push the cursor key ↑ or ↓ to highlight 'Random Access' and then press **ENTER**.

ADJUSTMENT MODE

Select a path from below :

RANDOM ACCESS
INSTALLATION
SERVICE

Source 01
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

Picture Service

Connecting a new Source.

Before using a new source, a correct file has to be installed. The projector's memory contains a list of files corresponding to the most used sources. When the new source corresponds with one of these files, the file can be loaded and saved for future use. When there is a little difference, the file can also be loaded and then edited until the source specs are reached.

Note : file loading can be done automatically (see File Options, in this chapter).
Files with a ~ in front of the file name are tempory files. These files will be deleted when switching to another source.

Start up the File Service.

To enter the File Service, handle as follow :

1 Pushing the cursor key ↑ or ↓ to highlight 'File Service' (menu 1).
2 Press **ENTER** to select.
The File service menu will be displayed (menu 2).

Note : **EXIT** returns to the Path selection menu.
ADJUST returns to operational mode.

RANDOM ACCESS
ADJUSTMENT MODE

FILE SERVICE
PICTURE TUNING
AUDIO TUNING
GEOMETRY

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

FILE SERVICE

LOAD
EDIT
RENAME
COPY
DELETE
OPTIONS

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Possible File Manipulations.

The following file manipulations are possible :
- Load : installation of a file for a new source.
- Edit : editing a loaded file to the source specs.
- Rename : renaming a file.
- Copy : copying a file to a new file.
- Delete : deleting an existing file.
- Options : way of sorting the files.

File Annotation.

xxxxxxxx.xxx x xxxxXxxxxi

i or blank : i = interlaced, blank = not interlaced

xxxxXxxxx : active pixel rating

x : source number

xxx : file extension, first character is C (for custom made files) or S (for standard files).
The second and third character is used for a following number (=file index)
file index for custom files : 00 to 63.

xxxxxxxx : base name, 8 characters.

Load File

Start up the Load File

1 Push the cursor key ↑ or ↓ to highlight 'Load' (menu 1).
2 Press **ENTER** to select.
The Load menu displays the corresponding files depending on the installed filter (menu 2).

This filter can be "Fit" or "All". To change the filter :
1 Push the cursor key → or ← highlight 'filter list'.
2 Press **ENTER** to toggle the annotation between brackets.

"All" : all files that can be loaded will be displayed.
"Fit" : only the best fitting files will be displayed (with a distinction of ± 2 lines and line duration distinction of ± 300 ns, if nothing is found within this small area, the projector continues searching until it finds something.)

```
FILE SERVICE

LOAD
EDIT
RENAME
COPY

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

menu 1

```
LOAD FILE
FILTER LIST [All]
Filename      Src   Resolution
---------------------------------
Video525.s01  1     675x240i
Video525.c01  1     675x240i
Video525.c02  1     675x240i

---------------------------------
Active file : Video525.c50
Select with ↑ or ↓ ,→
<ENTER> to accept
<EXIT> to return.
```

menu 2

How to load a file ?

1 Push the cursor key ↑ or ↓ to select the best fitting file.
2 Press **ENTER** to select.
A confirm Load file menu will be displayed with the newly created file and the one on which the new file is based on.
3 Press **ENTER** to confirm the new creation or **EXIT** to return to the load file menu.

During a load file, the actual active file is displayed next to the indication 'Active file'.

Note:
When scrolling through the files, the image will be adapted according to the settings of the selected file (on line adaptation).

```
LOAD FILE
FILTER LIST [All]
Filename      Src   Resolution
---------------------------------
Video525.s01  1     675x240i
Video525.c01  1     675x240i
Video525.c02  1     675x240i

---------------------------------
Active file : Video525.c50
Select with ↑ or ↓ ,→
<ENTER> to accept
<EXIT> to return.
```

menu 1

```
CONFIRM
LOAD FILE

Create file
Video525.c02
based on file
Video525.s01?

<ENTER> to confirm
<EXIT> to return
```

menu 2

The image is not perfect ?

If the displayed image is not correct after selecting the best fitting file, go to the Edit menu, select the active file and change the File settings.

Edit File

What can be done with the Edit File menu ?

The Edit file menu makes it possible to change the settings of the file according to the real settings of the connected source. Consult the source specification before entering the data.

How to start up the Edit menu ?

To start up the EDIT menu:
1 Push the cursor key ↑ or ↓ to highlight 'Edit'.
2 Press **ENTER** to select.
The Edit file adaptation menu will be displayed.
3 Select the file which must be edited (mostly the active file).
4 Press **ENTER**.

The file name will be displayed in the upper right corner.

FILE SERVICE

LOAD
EDIT
RENAME
COPY

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

EDIT FILE

Filename	Src	Resolution
Video525.s01	1	675x240i
Video525.c01	1	675x240i
Video525.c02	1	675x240i

Active file : Video525.c50
Select with ↑ or ↓ ,←
<ENTER> to accept
<EXIT> to return.

menu 2

Which items can be adjusted ?

The following items can be adjusted :
- Total quantity horizontal pixels
- Active quantity horizontal pixels
- Horizontal start in pixels
- Horizontal period in µs (is automatically adapted during the installation of a file with LOAD)
- Total vertical lines (is automatically adapted during the installation of a file with LOAD)
- Active vertical lines
- Vertical start in lines
- Interlaced : toggle on/off (is automatically set to its correct position during the installation of a file with LOAD)

All settings can individually be changed.

EDIT FILE xga.s30

HORIZONTAL	
TOTAL	1344 PIXELS
ACTIVE	1024 PIXELS
START	296 PIXELS
PERIOD	20.678 µS
VERTICAL (FIELD)	
TOTAL	806 LINES
ACTIVE	768 LINES
START	36 LINES
INTERLACED	[OFF]
READ AMDS	
OPTIONS	

↑,↓,← ,→ <ENTER>, <EXIT>

How to change the settings ?

1 Push the cursor key ↑ or ↓ to select an item.
The color of the selected item will change and follow one of the three methods to change the value.

a. method 1:
1 press **ENTER** to activate the digits
2 enter directly with the numeric keys on the RCU or local keypad the new value or

b. method 2:
1 Press **ENTER** to activate the digits
2 Push the cursor key → or ← to select the changing digit.
3 Push the cursor key ↑ or ↓ to scroll to desired digit.
4 When finished press **ENTER** to confirm.

c. method 3
1 Counting up or down by pushing the cursor key → or ← .

How to find the correct values for the displayed item?

During the installation of a file with LOAD, the horizontal period, the total number of vertical lines and the interlaced mode are automatically measured and filled in in the menu table. These values will be available when starting up the EDIT procedure of an active file.
(Caution : Do not adjust these settings on an active file, they are used to identify the input source file.)

If the value for *"Horizontal Total Pixels"* is wrong, sampling mistakes (small vertical bars in the projected image) will be seen in the image. Select "Total" and adjust the pixel quantity. Adjust for zero bars (hint: if the number of bars increase, adjust in the other direction).

The *"Active Pixels"* : determine the width of the window on the screen. This value is normally given in the source specifications. If not, adjust until full image is displayed (no missing pixels).

"Horizontal Start" : number of pixels between the beginning of the input signal and the start of the video information in the signal.

"Horizontal Period" : already filled in with the correct value when active file. (see caution above).

The *"Vertical Total Lines"* are already filled when an active file is selected to be edited (see caution above).

The *"Active Lines"* : number of horizontal lines determining the height of the projected image. This value is normally given in the specification of the source. If not, adjust until full image height is displayed (no missing lines)

Vertical start : number of lines between the start of the input signal and start of the image on the screen.

Interlaced [On] or [Off] : this selection is automatically filled when active file has to be edited. If the image is wrong due to mismeasurement, use the ENTER key to toggle between [On] and [Off]. (for interlaced images, 1 frame contains 2 fields).

Read AMDS
AMDS = automatic mode detection & synchronisation
During the installation of a file with LOAD, the system automatically measured the horizontal period, the total vertical lines and the interlaced mode.
When selecting Read AMDS, the system remeasures the above indicated items.

Options

```
        EDIT FILE OPTIONS
Source number            1
Clamp position           [leading]
Clamp delay              0
Clamp width              10
Field polarity           [pos]
Field select             [both]
Vertical refresh         [sync]
Vertical sync polarity   [leading]

        Select with ↑ or ↓
        <ENTER> to toggle
      ← or → to change value
         <EXIT> to return
```

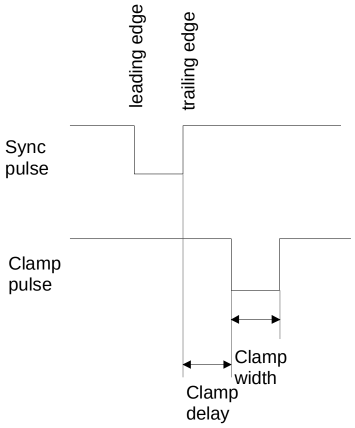
Source Number : The source number of a non-active source can be changed to any other source number. This makes it possible to create a file for future source numbers.

Clamp Position : Clamping determines the black level of the signal.
The clamp pulse can be related to the leading or the trailing edge of the sync pulse. Use the **ENTER** key to toggle between [leading] and [trailing].

Clamp Delay : The time between the leading edge of the clamp pulse and the locked edge of the sync pulse.
Can be any value between 0 and 255. Change the value by pushing the cursor key ➔ or ←.

Clamp Width : The width of the clamp pulse
Can be any value between 0 and 255. Change the value by pushing the cursor key ➔ or ←.

Example for clamp position [trailing]



Field Polarity :
The field polarity function is used for interlaced images. Both rasters of the image could be shifted in a wrong way (double lines are visible in the image). This can be corrected by forcing the field polarity to [neg] or [pos].
Use the **ENTER** key to toggle between [pos] and [neg].

Field Select : Default [both]
The field select is only used for interlaced images. One frame of an interlaced image contains two fields, an even and an odd field. The choice exists to project [both] fields on the screen or only the [even] or [odd] field. This can be useful for 3D projection.
Use the **ENTER** key to toggle between [both], [even] and [odd].

Vertical Refresh [sync/async] : The way of updating the image information on the LCD panels.
Not available for PAL-NTSC-SECAM sources. This option will be displayed in gray.

1 For sources with a vertical frequency up to 60 Hz : the vertical refresh rate is the same as the vertical frequency of the incoming source. This is a necessity to project moving images without 'motion artifacts'. For stationary images with a vertical frequency up to 60 Hz it is still possible to use asynchronous refresh. When loading Pal, Secam, NTSC-files the synchronous mode is default, for all other sources below 60 Hz asynchronous mode is default.

2 For sources with a vertical frequency higher that 60 Hz : the vertical refresh is different than the vertical frequency of the incoming source. Synchronous refresh cannot be used.

Vertical Sync Polarity : [leading] or [trailing]
The vertical refresh can be synchronised with the leading sync edge or trailing sync edge. Default on [leading].
Toggling to [trailing] is only necessary for special applications where the trailing edge of the sync signal has to be taken as a reference.
Use the **ENTER** key to toggle between [leading] or [trailing]

Press **EXIT** to leave the Edit File Option menu.
A 'Confirm Edit File' menu will be displayed.

CONFIRM
EDIT FILE

Save changes to file
xga.c30?

<ENTER> to confirm
<EXIT> to return

Rename a file

Start Up

To change the name of a selected file:
1 Push the cursor key ↑ or ↓ to highlight 'Rename' (menu 1).
2 Press **ENTER**.
The Rename selection menu will be displayed (menu 2).
3 Push the cursor key ↑ or ↓ to select a file name (menu 2).
4 Press **ENTER** to select.

The Rename menu will be displayed with the selected file name already filled in, leave in the 'From file name :' area and in the 'To file name :' area.

The first character in the 'To file name :' area is highlighted (menu3).

FILE SERVICE

EDIT
RENAME
COPY
DELETE

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

RENAME FILE

Filename	Src	Resolution
Video525.s01	1	675x240i
Video525.c01	1	675x240i
Video525.c02	1	675x240i

Active file : Video525.c50
Select with ↑ or ↓
<ENTER> to accept
<EXIT> to return.

menu 2

RENAME FILE

Frome file name :
Video525.s01
To file name :
demo.c10

Select with ← or →
Reprogram with ↑ or ↓
or numeric keys
<ENTER> to confirm
<EXIT> to return

menu 3

How to change the characters ?

1 Push the cursor key ← or → to select the desired character.
2 Change that character by pushing the cursor key ↑ or ↓. Numeric characters can be entered directly with numeric keys on the RCU.
3 Press **ENTER** to confirm. The renamed file is entered in the list of files.
4 Press **EXIT** to return to the Rename menu selection. No changes are made.

RENAME FILE

Frome file name :
Video525.s01
To file name :
demo.c10

Select with ↑ or ↓
Reprogram with ← or →
or numeric keys
<ENTER> to confirm
<EXIT> to return

menu 1

Copy a file

Start Up

To copy a selected file into a new file :
1 Push the cursor key ↑ or ↓ to highlight 'Copy' (menu 1).
2 Press **ENTER**.
The Copy selection menu will be displayed (menu 2).
3 Push the cursor key ↑ or ↓ to select a file name (menu 3).
4 Press **ENTER** to select.

The Copy menu will be displayed with the selected file name already filled in, in the 'From file name :' area and in the 'To file name:' area.

The first character in the 'To file name :' is highlighted.

FILE SERVICE

EDIT
RENAME
COPY
DELETE

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

COPY FILE

Filename	Src	Resolution
Video525.s01	1	675x240i
Video525.c01	1	675x240i
Video525.c02	1	675x240i

Active file : Video525.c50
Select with ↑ or ↓
<ENTER> to accept
<EXIT> to return.

menu 2

COPY FILE

Frome file name :
xga_60.s03
To file name :
xga_60.c14

Select with ← or →
Reprogram with ↑ or ↓
or numeric keys
<ENTER> to confirm
<EXIT> to return

menu 3

How to change the characters ?

1 Push the cursor key ← or → to select the desired character (menu 4).
2 Change that character by pushing the cursor key ↑ or ↓. Numeric characters can be entered directly with numeric keys on the RCU.
3 Press **ENTER** to confirm. The renamed file is entered in the list of files.
4 Press **EXIT** to return to the Copy menu selection. No changes are made.

COPY FILE

Frome file name :
xga_60.s03
To file name :
xga_60.c14

Select with ← or →
Reprogram with ↑ or ↓
or numeric keys
<ENTER> to confirm
<EXIT> to return

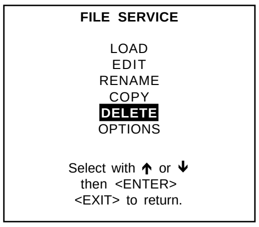
menu 4

Delete

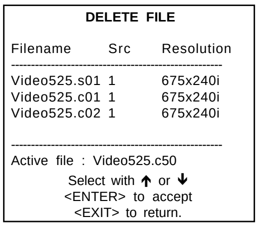
Start Up

To delete a selected file out of the list of files :
1 Push the cursor key ↑ or ↓ to highlight 'Delete' (menu 1).
2 Press **ENTER**.
The delete selection menu will be displayed (menu 2).
3 Push the cursor key ↑ or ↓ to select a file name.
4 Press **ENTER** to select.
If [All] is selected, your password has to be entered before all files will be deleted.

A confirmation menu "Delete file 'file name'?" is displayed (menu 3). When you want to delete the file, press **ENTER**. If you do not want to delete the file, press **EXIT**.
Note : the active file cannot be deleted.



menu 1



menu 2

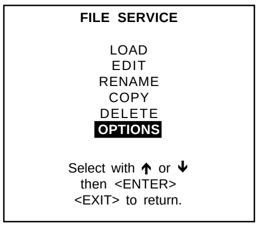


menu 3

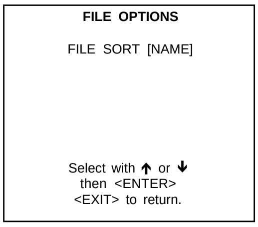
File Options

Start Up

1 Push the cursor key ↑ or ↓ to highlight 'File Options' (menu 1).
2 Press **ENTER**.
The option selection menu will be displayed (menu 2).



menu 1



menu 2

File Sort

Press ENTER to toggle between [name] and [index]
[name] : The files in the file list will be sorted on the file name.
[index] : The files in the file list will be sorted on the file extension.

Picture Tuning

Start Up

To improve the image quality, the items in the Picture Tuning menu can be toggled or adjusted.
To start up the Picture Tuning :

1 Push the cursor key ↑ or ↓ to highlight 'Picture Tuning' (menu 1).
2 Press **ENTER** to select.
The Picture Tuning menu will be displayed (menu 2).

RANDOM ACCESS ADJUSTMENT MODE

FILE SERVICE
PICTURE TUNING
AUDIO TUNNING
GEOMETRY
SOFT EDGE
DEMO
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

PICTURE TUNING

CTI [ON]
MOTION COMPENSATION
COLOR TEMPERATURE
GAMMA
DECODING [EBU]
COLOR DEPTH
INPUT BALANCE
BLACK COLOR
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Which items are available ?

The next items are available :
- CTI ON/OFF (optional)
- motion compensation
- color temperature
- gamma
- decoding EBU/IRE (optional)
- color depth
- input balance
- black color

CTI ON/OFF

Optional

What is CTI ?

CTI : Color Transient Improvement.
To improve the transition from one color to another.

How to change thet CTI settings

1 Push the cursor key ↑ or ↓ to highlight 'CTI'.
2 Press **ENTER** to toggle between ON and OFF.

PICTURE TUNING

CTI [ON]
MOTION COMPENSATION
COLOR TEMPERATURE
GAMMA
DECODING [EBU]
COLOR DEPTH
INPUT BALANCE
BLACK COLOR
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

Note :

This function applies to PAL and NTSC video or S-video inputs only.

Motion Compensation

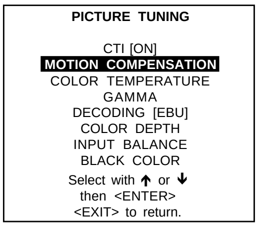
Optional

What is motion compensation ?

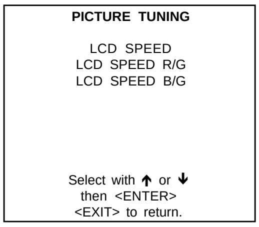
To change the response time of the LCD panels.
The following options can be adjusted:
- LCD speed
- LCD speed R/G
- LCD speed B/G

How to start up ?

1 Push the cursor key ↑ or ↓ to highlight 'Motion compensation' (menu 1).
2 Press **ENTER** to select. The motion compensation menu will be displayed (menu 2).



menu 1

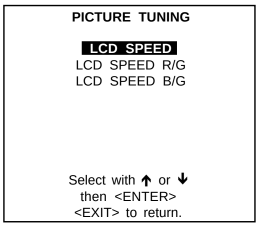


menu 2

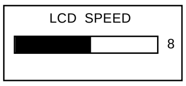
LCD speed

This will change the response time of the LCD's.
Range 0 - 16
Default : 8

To change the response time :
1 Push the cursor key ↑ or ↓ to highlight 'LCD speed' (menu 1).
2 Press **ENTER** to select.
The image will be displayed with together with an adjustment box (menu 2).



menu 1

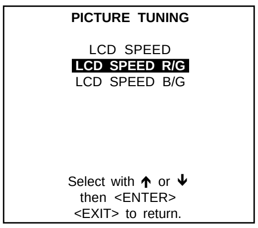


menu 2

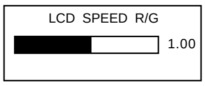
LCD speed R/G

This will change the response time of the Red LCD compared to the Green LCD.
Range : 0 - 2 with steps of 0.125
Default : 1.00

To change the response time of the Red LCD panel :
1 Push the cursor key ↑ or ↓ to highlight 'LCD speed R/G' (menu 1).
2 Press **ENTER** to select.
The image will be displayed with together with an adjustment box (menu 2).



menu 1

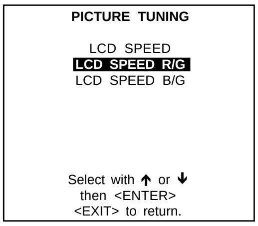


menu 2

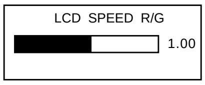
LCD speed B/G

This will change the response time of the Blue LCD compared to the Green LCD.
Range : 0 - 2 with steps of 0.125
Default : 1.00

To change the response time of the Red LCD panel :
1 Push the cursor key ↑ or ↓ to highlight 'LCD speed R/G' (menu 1).
2 Press **ENTER** to select.
The image will be displayed with together with an adjustment box (menu 2).



menu 1

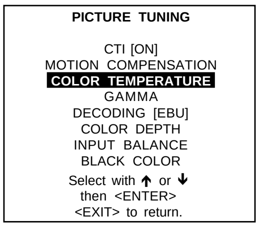


menu 2

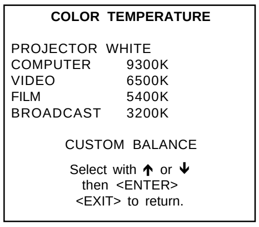
Color Temperature

Start Up

1 Push the cursor key ↑ or ↓ to highlight 'Color Temperature'.
2 Press **ENTER** to select.
The color temperature selection menu will be displayed.



menu 1



menu 2

Available Color Temperature :

- Projector white
- Broadcast 3200 K
- Film 5400 K
- Video 6500 K
- Computer 9300 K
- Custom balance.

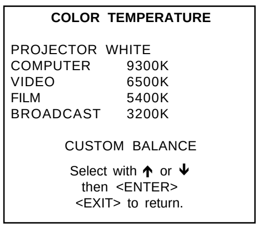
Adjusting the Color Temperature

Push the cursor key up or down to select a fixed color temperature or custom balance.

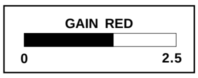
Projector white will provide maximum projector light output.
The calibrated 'Broadcast', 'Film', 'Video' and 'Computer' presets will provide optimum color tracking.
Custom balance allows the user to set his own preferred color temperature.

Custom Balance

To adjust Custom Balance, handle as follow :
1 Push the cursor key ↑ or ↓ to highlight 'Custom Balance' (menu 1).
2 Press **ENTER** to select.
3 Push the cursor key ↑ or ↓ to adjust red and push the cursor key ← or → to adjust blue (range 0 to 2.5) in comparison with the green color (menu 2).



menu 1



menu 2

Gamma

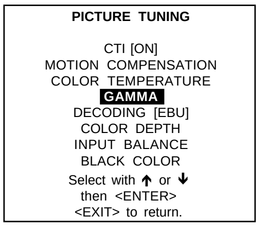
What can be adjusted ?

With the gamma correction adjustment, it is possible to accurately set the gamma of the projector image.

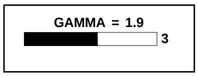
How to change the gamma value ?

1 Push the cursor key ↑ or ↓ to highlight 'Gamma' (menu 1).
2 Press **ENTER** to select.
3 Change the gamma value by pushing the cursor key ← or → until the desired value is reached (menu 2).
4 Press **EXIT** to return to the Picture Tuning menu.

Default value of gamma = 1.9



menu 1



menu 2

Decoding EBU/IRE

Optional

Note :

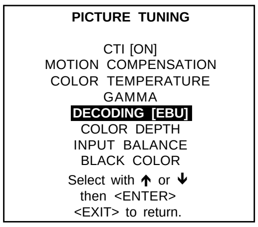
Only for NTSC signals.

What can be done ?

The possibility is offered to decode the NTSC video signals via the default American IRE standard or via the European EBU standard. Decoding a NTSC signal using the European EBU standard may result in a greenish tint.

How can it be selected ?

1 Push the cursor key ↑ or ↓ to highlight 'Decoding' (menu 1).
2 Press **ENTER** to toggle between EBU or IRE.
3 Press **EXIT** to return.



menu 1

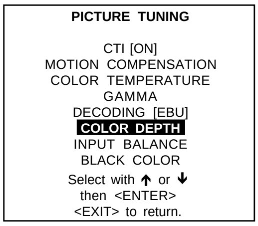
Color Depth

Purpose

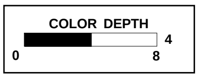
Increases color saturation of dark colors.

To change the Color depth value :

1 Push the cursor key ↑ or ↓ to highlight 'Color Depth' (menu 1).
2 Press **ENTER** to select.
3 Change the value by pushing the cursor key ← or → until the desired dark color saturation is reached (menu 2).
  Adjustment range : 0 ... 8
  Default : 4
4 Press **EXIT** to return to the Picture Tuning menu.



menu 1



menu 2

Black Color

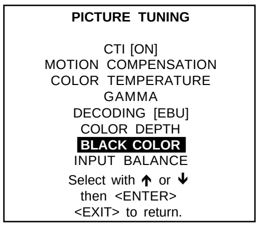
Purpose

Modifies the color of the black image for color matching between projectors.

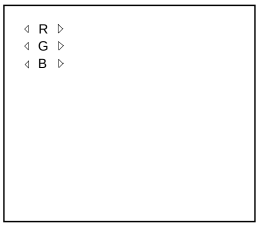
To change the black color :

1 Push the cursor key ↑ or ↓ to highlight 'Black Color' (menu 1).
2 Press **ENTER** to select.
3 Change the color of the black image by adding a certain amount of Red (R), Green (G) or Blue (B).

Notice : Deviation from R=0, G=0, B=0 will result in a lower contrast ratio for the projector.



menu 1



Input Balance

Why adjusting the input balance ?

The input balance is normally correct adjusted in the factory. But due to signal distribution or signal transmission, a color imbalance can be the result. This imbalance can be adjusted source by source for color critical applications. These adjustments influence only the actual custom adjustment file. This procedure is not so easy.
Attention : Before starting the Input Balance function, generate a signal with dominant black and white areas.

How to adjust the input balance ?

The default values are normally loaded when selecting a source. If the image is not as desired, adjust for this source as follow :

1 Push the cursor key ↑ or ↓ to highlight 'Input Balance' (menu 1).
2 Press ENTER to select.
  The Input Balance menu will be displayed (menu 2).

Start with the Black Balance :
1 Push the cursor key ↑ or ↓ to highlight 'Black Balance' (menu 2).
2 Press **ENTER** to select.
3 Adjust the Brightness to a maximum value until there is just no green noise visible in the black areas.
4 Adjust with the cursor key ↑ or ↓ or ← or → until there is no red or blue noise visible in the black areas.

Continue with the White Balance :
1 Push the cursor key ↑ or ↓ to highlight 'White Balance' (menu 2).
2 Press **ENTER** to select.
3 Adjust the Contrast to a maximum value until the white areas are just white (without green noice) and return one step.
4 Adjust with the cursor key ↑ or ↓ or ← or → until there is no red or blue noise visible in the white areas.

PICTURE TUNING

CTI [ON]
MOTION COMPENSATION
COLOR TEMPERATURE
GAMMA
DECODING [EBU]
COLOR DEPTH
BLACK COLOR
INPUT BALANCE
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

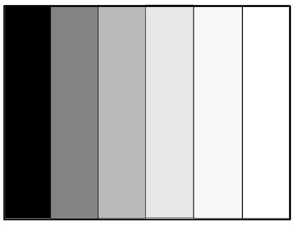
INPUT BALANCE

WHITE BALANCE
BLACK BALANCE

DEFAULT

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2



menu 3

Audio Tuning

Optional

Start Up

1 Push the cursor key ↑ or ↓ to highlight 'Audio Tuning' (menu 1).
2 Press **ENTER** to select.
The Audio Tuning menu will be displayed (menu 2).

RANDOM ACCESS
ADJUSTMENT MODE

FILE SERVICE
PICTURE TUNING
AUDIO TUNNING
GEOMETRY
SOFT EDGE
DEMO
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

AUDIO TUNING
VOLUME
BALANCE
BASS
TREBLE
MUTE [OFF]
FADE
MODE [STEREO]
VIDEO - AUDIO LOCK

1	2	3	4	5	6
[A]	[C]	[B]	[A]	[B]	[A]

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Available items

- Volume
- Balance
- Bass
- Treble
- Mute
- Fade
- Mode
- Video - Audio lock

Volume, Balance, Bass and Treble

How to adjust ?

When a sound control is selected by highlighting the item with the cursor key, a text box with a bar scale, icon and function name of the control, e.g. 'Volume' appears on the screen (only when text is ON). The length of the bar scale indicates the current memory setting for this source. For more information about the sound controls, see 'Sound controls with direct access' in the Chapter 'Controlling'.

Mute

Purpose

To stop the sound reproduction.

How to stop sound reproduction ?

1 Push the cursor key ↑ or ↓ to highlight 'Mute' (menu 1).
2 Press **ENTER** to toggle between [on] or [off].

AUDIO TUNING
VOLUME
BALANCE
BASS
TREBLE
MUTE [OFF]
FADE
MODE [STEREO]
VIDEO - AUDIO LOCK
1 2 3 4 5 6
[A] [C] [B] [A] [B] [A]
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

Fade

Purpose

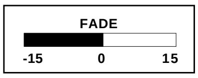
Determine where the sound signals will be reproduced, internally or externally.

How to set up the fade ?

1 Push the cursor key ↑ or ↓ to highlight 'Fade' (menu 1).
2 Press **ENTER** to select.
3 Adjust the desired fade level.
The fade can be adjusted between -15 and 15 (menu 2).

AUDIO TUNING
VOLUME
BALANCE
BASS
TREBLE
MUTE [OFF]
FADE
MODE [STEREO]
VIDEO - AUDIO LOCK
1 2 3 4 5 6
[A] [C] [B] [A] [B] [A]
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1



menu 2

Fade on -15 : no sound reproduction on the external loudspeakers, max on the internal loudspreaker with the same volume level as adjusted with the volume control.

Fade on 15 : no sound reproduction on the internal loudspeakers but max on the external loudspeakers with the same volume level as adjusted with the volume control.

Mode [stereo]/[mono]

Purpose

To switch the sound reproduction between mono and stereo.

How to install the sound mode ?

1 Push the cursor key ↑ or ↓ to highlight 'Mode' (menu 1).
2 Press **ENTER** to toggle between [stereo] or [mono].

AUDIO TUNING
VOLUME
BALANCE
BASS
TREBLE
MUTE [OFF]
FADE
MODE [STEREO]
VIDEO - AUDIO LOCK
1 2 3 4 5 6
[A] [C] [B] [A] [B] [A]
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

Video - Audio lock

Purpose

An input source can be locked to an audio input.

How to lock input source to an audio source ?

1 Push the cursor key ↑ or ↓ to highlight the first input source (menu 1).
2 Press **ENTER** to scroll the associated audio input between [A], [B] or [C].
3 Push the cursor key ← or → to highlight another input source.
4 Press **ENTER** to scroll between [A], [B] or [C].
5 Continue for the other inputs in the same way.

AUDIO TUNING
VOLUME
BALANCE
TREBLE
MUTE [OFF]
FADE
MODE [STEREO]
VIDEO - AUDIO LOCK

1	2	3	4	5	6
[A]	[C]	[B]	[A]	[B]	[A]

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

Geometry

To start up the Geometry functions

1 Push the cursor key ↑ or ↓ to highlight 'Geometry' (menu 1).
2 Press **ENTER** to select.
The geometry menu will be displayed (menu 2).

RANDOM ACCESS
ADJUSTMENT MODE

FILE SERVICE
PICTURE TUNING
AUDIO TUNNING
GEOMETRY
SOFT EDGE
DEMO
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

GEOMETRY

SHIFT
SIZE
SIDE KEYSTONE
BLANKING
ASPECT RATIO [5:4]
OPTIONS

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Which Geometry adjustments are possible ?

- horizontal and vertical image shift.
- horizontal and vertical image size
- side keystone (only necessary if the projector is mounted at a non standard projection angle).
- blanking
- aspect ratio
- options

How can an adjustment be adjusted ?

1 Using the cursor key to adjust or
2 Entering the value with the digit keys. Therefore, press **ENTER** to select the indicated value and enter the desired value with the digit keys. Press **ENTER** to confirm the entered value.

Shift

What can be done ?

The image can be shifted in a horizontal or vertical direction.

To start up the shift action :

1 Push the cursor key ↑ or ↓ to highlight 'Shift' (menu 1).
2 Press **ENTER** to select.
3 Push the cursor key ↑ or ↓ to shift the image in a vertical direction. Push the cursor key ← or → to shift the image in a horizontal direction.
The default value for the shift is 0.

Shifting in a vertical direction : when the shift value is positive, the image is shifted upwards, when the value is negative, the image is shifted downwards.
Shifting in a horizontal direction : when the shift value is positive, the image is shifted to the right, when the value is negative, the image is shifted to the left.

GEOMETRY

SHIFT
SIZE
SIDE KEYSTONE
BLANKING
ASPECT RATIO [5:4]
OPTIONS

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

Size

What can be done ?

The size can be adjusted in a vertical or horizontal way.
When adjusting the vertical size,
The upper side of the image is fixed (table and ceiling mounted configurations) and only the lower side can be moved to its exact position.

When adjusting the horizontal size, the left side of the image is fixed and only the right side can be moved to its exact position.

To start up the size adjustment :

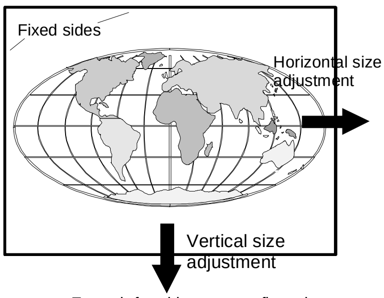
1 Push the cursor key ↑ or ↓ to highlight 'Size' (menu 1).
2 Press **ENTER** to select.
3 Push the cursor key ↑ or ↓ to size the image in a vertical direction. Push the cursor key ← or → to size the image in a horizontal direction.

GEOMETRY

SHIFT
SIZE
SIDE KEYSTONE
BLANKING
ASPECT RATIO [5:4]
OPTIONS

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1



Example for table mount configuration

Side Keystone

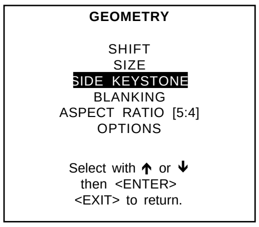
What can be done ?

The side keystone adjustment is used to align the image if the projector is mounted at a nonstandard projection angle.

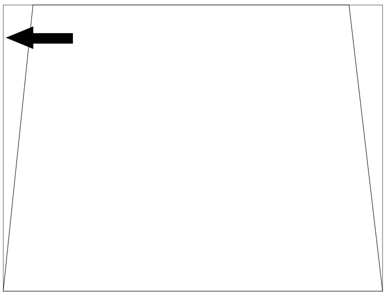
Aligning the keystone

1 Push the cursor key 🡅 or 🡇 to highlight 'Side Keystone' (menu 1).
2 Press **ENTER** to select.
3 Push the cursor key 🡄 or 🡆 to adjust the keystone of the image.
When the upper part of the image is wider than the lower part of the image, push the cursor key 🡄. The number indication below the bar scale will be negative.

When the upper part of the image is smaller than the lower part of the image, push the cursor key 🡆. The number indication below the bar scale will be positive.



menu 1





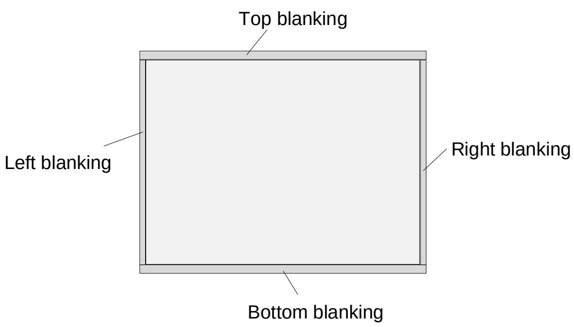
Blanking

What can be done ?

Blanking adjustments affect only the edges of the projected image and are used to frame the projected image on to the screen and to hide or black out unwanted information (or noise). A '0' on the bar scale indicates no blanking.

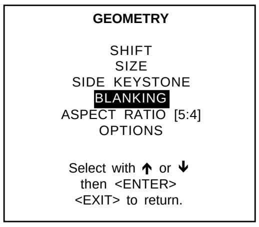
Available Blanking Adjustments

- top blanking
- bottom blanking
- left blanking
- right blanking

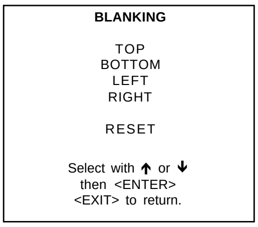


Adjusting the blanking.

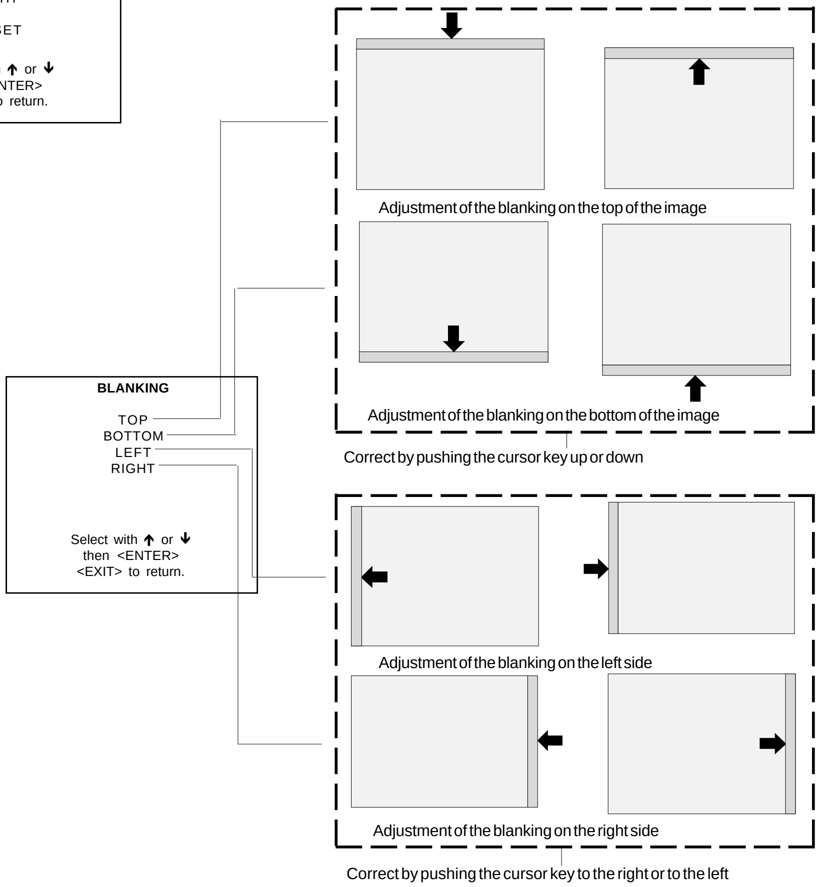
1 Push the cursor key ↑ or ↓ to highlight 'Blanking' (menu 1).
2 Press **ENTER** to display the blanking menu.
3 Push the cursor key ↑ or ↓ to highlight the desired blanking (menu 2)
4 Press ENTER to start up the chosen blanking.
5 Use the cursor keys to adjust the blanking.



menu 1



menu 2



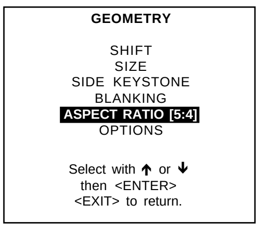
Aspect Ratio [5:4]/[4:3]/[16:9]

Purpose

To force the projector in a typical aspect ratio. E.g. projecting a 4:3 image in a 16:9 aspect ratio.

How to setup the desired aspect ratio ?

1 Push the cursor key ↑ or ↓ to highlight 'Aspect Ratio' (menu 1).
2 Press **ENTER** to scroll between [5:4] or [4:3] or [16:9].



menu 1

Options

How to change the geometry options ?

1 Push the cursor key ↑ or ↓ to highlight 'Options' (menu 1).
2 Press **ENTER** to display the Geometry options menu (menu 2).

GEOMETRY

SHIFT
SIZE
SIDE KEYSTONE
BLANKING
ASPECT RATIO [5:4]
OPTIONS

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

GEOMETRY OPTIONS

Use the same side
keystone correction
for all files ?
[YES]

<ENTER> to toggle
<EXIT> to return

menu 2

The next question will be asked by the projector :
'Use the same side keystone correction for all files ? [YES] or [NO].
[YES] : the same keystone correction will be used for all installed files.
[NO] : the keystone has to be adjusted file per file.

1 Push the **ENTER** key to toggle between [YES] or [NO].
2 Press **EXIT** to return to the Geometry menu.

Soft Edge

Optional

To start up the Soft Edge function

1 Push the cursor key ↑ or ↓ to highlight 'Soft Edge' (menu 1).
2 Press ENTER to select.
The soft edge menu will be displayed (menu 2).

RANDOM ACCESS
ADJUSTMENT MODE

FILE SERVICE
PICTURE TUNING
AUDIO TUNNING
GEOMETRY
SOFT EDGE
DEMO
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

SOFT EDGE

TYPE
SIZE

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Which soft edge items are available ?

- Type : area definition.
- Size : width of a soft edge area.

Type

Purpose

To select the soft edge area on the screen.

How selecting the soft edge area ?

1 Push the cursor key ↑ or ↓ to highlight 'Type' (menu 1).
2 Press ENTER to select.
The Type menu will be displayed (menu 2).

SOFT EDGE

TYPE
SIZE

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

SOFT EDGE TYPE

NONE
LEFT
BOTH
RIGHT

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Available soft edge types.

None : no soft edge area installed (image 1).
Left : soft edge on left side of the image (image 2).
Both : soft edge on both sides of the image (image 3).
Right : soft edge on right side of the image (image 4).


image 1


image 2


image 3


image 4

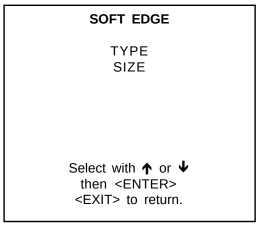
Size

Purpose

To change the width of the installed soft area.

How to set up the width ?

1 Push the cursor key ↑ or ↓ to highlight 'Size' (menu 1).
2 Press **ENTER** to select.
Use the cursor key ← or → to set up the desired soft edge area width.
Range : 1 to 20 (this value is an percentage of the complete image width).



menu 1

Important Note :

"Black Color" in the Picture tuning menu can be used to match the black parts of the image center to that of the soft edge overlap zones at the right and/or left side of the image.

Demo

Purpose

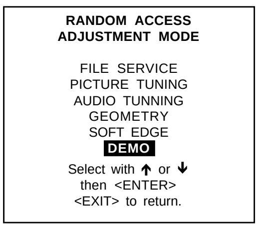
To have a demonstration of the settings.

Available image processing features

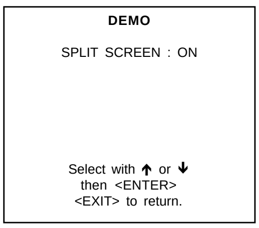
- Split Screen on/off.

How to start up the Demo ?

1 Push the cursor key ↑ or ↓ to highlight 'Demo' (menu 1).
2 Press **ENTER** to select.
The Demo menu will be displayed (menu 2).



menu 1



menu 2

Split Screen

Purpose

To have a demonstration of the image settings such as : sharpness, de-interlacing, color depth and TMR (true motion reproduction).

How to start up ?

1 Push the cursor key ↑ or ↓ to highlight 'Split Screen' (menu 1).
2 Press **ENTER** to toggle between on and off.
When on : the screen will split in the middle. One half will stay as the settings are and the other half will change while changing the settings.

DEMO

SPLIT SCREEN : ON

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

8 INSTALLATION MODE

Installation Mode

Start Up

Push the cursor key ↑ or ↓ to highlight 'Installation Mode' and then press **ENTER**.

ADJUSTMENT MODE

Select a path from below :

RANDOM ACCESS
INSTALLATION
SERVICE

Source 01
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

INSTALLATION
INPUT SLOTS
800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
NO SIGNAL
LENS
MENU POSITION
QUICK ACCESS KEYS
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

The following item can be selected in the Installation mode :

Input slots : to set up the input priority.
800 Peripheral : to select the type of output module used in the RCVDS05 and the type of communication code, PPM or RC05.
Configuration : to set up the projector position.
OSD color : to change the color of the highlighted item.
Internal Patterns
No Signal : background color can be black or blue.
Lens : to adjust the lens
Menu Position : to force the menu in the middle of the screen.
Quick Access Keys : function keys for direct access.

Input Slots

What can be done ?

The input configuration of the variable inputs is shown in the input slots menu.

To view or to change the input configuration :

1 Push the cursor key ↑ or ↓ to highlight 'Input Slots'.
2 Press **ENTER** to select.
The internal system will scan the input slots and displays the result in the Input slots menu.

The black indicated inputs are selectable and changeable. The gray indicated inputs are fix inputs and are not changeable.
The indication in front of the digit means :
x : valid signal connected to the input.
- : no valid signal connected to the input.

INSTALLATION
INPUT SLOTS
800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
NO SIGNAL
LENS
MENU POSITION
QUICK ACCESS KEYS
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

INPUT SLOTS

SLOT SELECTOR [Automatic]

x 1. RGB-SS [CV or HS&VS]
- 2. RGB-SS [CV or HS&VS]
- 3. VIDEO
- 4. S-VIDEO
- 5. DIGITAL INPUT
- 6. IEEE 1394
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Possible results for the input slots :

Source	indication
Video or S-Video	Video S-Video
RGB analog	RGB-CV : separate sync is composite video signal on H/C input RGB-HS&VS : separate sync is horizontal and vertical sync RGB-CS : separate sync is composite sync RGB-SOG : sync on green
Component video	Component Video

What if a switcher is connected to the projector ?

If a RCVDS (switched on) or VS05 is connected to the projector, it will be also indicated on the menu by adding *+800 peripheral.* If no 800 peripheral indication is made on the menu, there are still two possibilities :

- no RCVDS or VS05 connected or
- RCVDS is switched off.

When a 800 peripheral is connected to the projector, the input slots are not accessible with the cursor key to toggle their function.

800 Peripheral

What can be installed ?

- The type of output module in a RCVDS05.
- The type of communication protocol.

Defining the Output module of the RCVDS05

When a RCVDS05 is connected to the projector, the type of output module of this RCVDS05 has to be defined in the 800 peripheral menu.
The type of output module can be :

- standard output module or
- 5 cable output module.

To define the output module :

1. Push the cursor key ↑ or ↓ to highlight '800 Peripheral' (menu 1).
2. Press **ENTER** to select.
3. Push the cursor key ↑ or ↓ to highlight 'Output module' (menu 2).
4. Press **ENTER** to toggle between 'Standard' or '5-cable'.

INSTALLATION
INPUT SLOTS
800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
NO SIGNAL
LENS
MENU POSITION
QUICK ACCESS KEYS
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

800 PERIPHERAL

OUTPUT MODULE [STANDARD]
INFRARED [PPM]

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Defining the Infrared Communication protocol

When a peripheral is connected to the 'Comm Port', the communication can be in PPM or RC5.
The type of communication can be set to :

- PPM
- RC5

To define the communication :

1. Push the cursor key ↑ or ↓ to highlight 'Infrared' (menu 1).
2. Press **ENTER** to select.
3. Press **ENTER** to toggle between [PPM] or [RC5].

INSTALLATION
INPUT SLOTS
800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
NO SIGNAL
LENS
MENU POSITION
QUICK ACCESS KEYS
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

800 PERIPHERAL

OUTPUT MODULE [STANDARD]
INFRARED [PPM]

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Configuration

What can be done ?

The way of physical installation of the projector can be defined to the projector.
The following installation configurations are possible :
- front/table
- front/ceiling
- rear/ceiling
- rear/table

Set up the Correct Configuration

1 Push the cursor key ↑ or ↓ to highlight 'Configuration' (menu 1).
2 Press **ENTER** to select.
The Configuration menu will be displayed.

For more information, see Projector configuration in chapter 3 : 'Installation Guidelines'.

INSTALLATION
INPUT SLOTS
800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
NO SIGNAL
LENS
MENU POSITION
QUICK ACCESS KEYS
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

OSD color (On-Screen Display)

What can be done ?

The highlighted items on the menus can be displayed in red, green or yellow.

How to change this color setting ?

1 Push the cursor key ↑ or ↓ to highlight 'OSD color'.
2 Press **ENTER** to select.
The OSD color menu will be displayed.
3 Push the cursor key ↑ or ↓ to highlight a color.
4 Press **ENTER** to select.

INSTALLATION
INPUT SLOTS
800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
NO SIGNAL
LENS
MENU POSITION
QUICK ACCESS KEYS
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

OSD COLOR
HIGHLIGHTED ITEM

RED
GREEN
YELLOW

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Internal Patterns

What can be done with these internal patterns ?

The projector is equipped with different internal patterns which can be used for measurment purposes.

How to select an internal pattern ?

1 Push the cursor key ↑ or ↓ to highlight 'Internal Patterns' (menu 1).
2 Press **ENTER** to select.
The internal pattern menu will be displayed (menu 2).
3 Push the cursor key ↑ or ↓ to highlight the Internal Patterns.
4 Press **ENTER** to display the select internal pattern.

INSTALLATION
INPUT SLOTS
800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
NO SIGNAL
LENS
MENU POSITION
QUICK ACCESS KEYS
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

INTERNAL PATTERNS
OUTLINE
HATCH
COLOR BARS
MULTIBURST
CHECKER BOARD
PAGE CHAR
ALPHA_NUMERIC CHAR
CHARACTER SETS
BACKGROUNDS
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Available patterns

Outline
Hatch
Color Bars
Multiburst
Checker Board
Page Characters
Alpha-numeric characters
Character Sets
Backgrounds

No Signal

What will happen ?

If there is no signal connect to the projector,
- the background color can be black or blue and
- the projector can shutdown after a certain time.

Changing the background color

1 Push the cursor key ↑ or ↓ to highlight 'No signal'.
2 Press **ENTER** to select.
The 'No Signal' menu will be displayed.
3 Push the cursor key ↑ or ↓ to highlight 'Color'.
4 Press **ENTER** to toggle between [blue] or [black].

INSTALLATION
INPUT SLOTS
800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
NO SIGNAL
LENS
MENU POSITION
QUICK ACCESS KEYS
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

NO SIGNAL

COLOR [Blue]
SHUTDOWN [Off]

Shutdown time : 5 min

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Changing the shutdown setting

1 Push the cursor key ↑ or ↓ to highlight 'No signal'.
2 Press **ENTER** to select.
The 'No Signal' menu will be displayed.
3 Push the cursor key ↑ or ↓ to highlight 'Shutdown'.
4 Press **ENTER** to toggle between [On] or [Off].

INSTALLATION
INPUT SLOTS
800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
NO SIGNAL
LENS
MENU POSITION
QUICK ACCESS KEYS
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

NO SIGNAL

COLOR [Blue]
SHUTDOWN [Off]

Shutdown time : 5 min

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Changing the Shutdown Time

The shutdown time can be set between 5 min and 60 min.
To set up the shutdown time, handle as follow :

1. Push the cursor key ↑ or ↓ to highlight 'No signal' (menu 1).
2. Press **ENTER** to select.
3. Push the cursor key ↑ or ↓ to highlight 'Shutdown time' (menu 2).
4. Push the cursor key ↑ or ↓ to change the digits or
   Enter the digits directly with the digits keys on the RCU.

INSTALLATION
INPUT SLOTS
800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
NO SIGNAL
LENS
MENU POSITION
QUICK ACCESS KEYS
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

NO SIGNAL

COLOR [Blue]
SHUTDOWN [Off]

Shutdown time : 5 min

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Quick Access Keys

What can be done ?

The function keys on top of the RCU can be associated with an adjustment item in one of the adjustment menus.
Each item which is not password protected or does not have a key on the RCU can associated to a function key.

Getting an overview

The menu Quick Access keys gives an overview of the actual programmed functions.

To get an overview, handle as follow :

1. Push the cursor key ↑ or ↓ to highlight 'Quick Access Keys' (menu 1).
2. Press **ENTER** to select.
   The Quick Access Keys menu will be displayed (menu 2).

INSTALLATION
INPUT SLOTS
800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
NO SIGNAL
QUICK ACCESS KEYS
LENS
MENU POSITION
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

QUICK ACCESS KEYS

F1 : COLOR DEPTH
F2 : DIMMING
F3 : CONFIGURATION
F4 : GAMMA
F5 : COLOR TEMPERATURE

Note :

'?' : auto image adjust
'*' : lens adjustments

menu 2

Factory preprogrammed keys

F1 : color depth
F2 : dimming
F3 : configuration
F4 : gamma
F5 : color temperature

How to program the quick access keys (function keys) :

1. Scroll through the menus until the desired menu is active
2. Push the desired function key for 3 seconds.
   The message 'Quick access to this menu with Fx', where x is the digit of the selected function key.
   If the selected menu is not a valid menu for the quick access keys the next message will be displayed : "Quick access to this menu impossible".

Lens Adjustments

What can be done ?

All lens adjustments are motorized and can be adjusted with the RCU.
The following items can be adjusted:
- Zoom/Focus
- Shift

To adjust all lens functions such as zoom, focus and shift, handle as follow :
1 Push the cursor key ↑ or ↓ to highlight 'Lens' (menu 1).
2 Press **ENTER** to select.
The Adjustment pattern will be displayed.
With the **TEXT** key it is possible to toggle between the internal adjustment pattern or the connected source.

INSTALLATION
INPUT SLOTS
800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
NO SIGNAL
QUICK ACCESS KEYS
LENS
MENU POSITION
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

Zoom/Focus/Shift

The Zoom/Focus function is only applied when a motorised zoom lens is mounted.

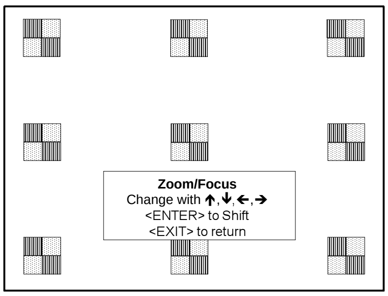
To focus or zoom the image :

1 Push the cursor key ↑ or ↓ to zoom and ← or → to focus the image (menu 1).
2 When finished, press **EXIT** to return to the installation menu or press **ENTER** to go to the shift function.

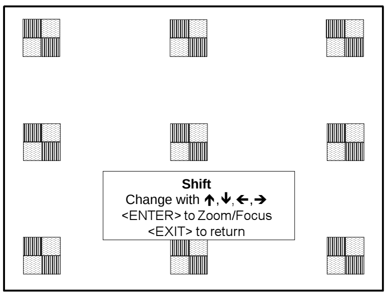
To shift the image :

1 Press **ENTER** to switch to the shift menu
2 Push the cursor key ↑ or ↓ to shift the image up or down and ← or → to shift the image left or right (menu 2).
3 When finished, press **EXIT** to return to the shift menu or press ENTER to go to the zoom/focus function.

The lens can be shifted in a range of :
- vertical direction : - 2 mm to + 20 mm
- horizontal direction : - 5 mm to + 5 mm



menu 1



menu 2

Menu Position

What can be done ?

Menu position can be in the 'Edge' mode where some of the menus will be positionded near the corners of the image, or in the 'Center' mode where all menus will be centered on the image.

How to change the setting ?

1 Push the cursor key ↑ or ↓ to highlight 'Menu Position' (menu 1).
2 Press **ENTER** to toggle between Center and Edges

INSTALLATION
INPUT SLOTS
800 PERIPHERALS
CONFIGURATION
OSD COLOR
INTERNAL PATTERNS
NO SIGNAL
LENS
MENU POSITION
QUICK ACCESS KEYS
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

9 SERVICE MODE

Service Mode

Start Up

Push the cursor key ↑ or ↓ to highlight 'Service' and then press **ENTER**.

Some items in the Service mode are password protected (when the password function is active). Enter the password to continue. All other password protected items are now available if you stay in the adjustment mode.

ADJUSTMENT MODE

Select a path from below :

RANDOM ACCESS
INSTALLATION
SERVICE

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

SERVICE

IDENTIFICATION
CHANGE PASSWORD
CHANGE LANGUAGE
CHANGE PROJ. ADDRESS
CHANGE BAUDRATE PC
RESET LAMP RUNTIME
LAMP RUNTIME HISTORY
DIMMING
COMMON ADDRESS : 0
MORE...
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

SERVICE

BARCO LOGO
PANEL ADJUSTMENTS
UNIFORMITY
RESET INPUT BALANCE
I2C DIAGNOSIS

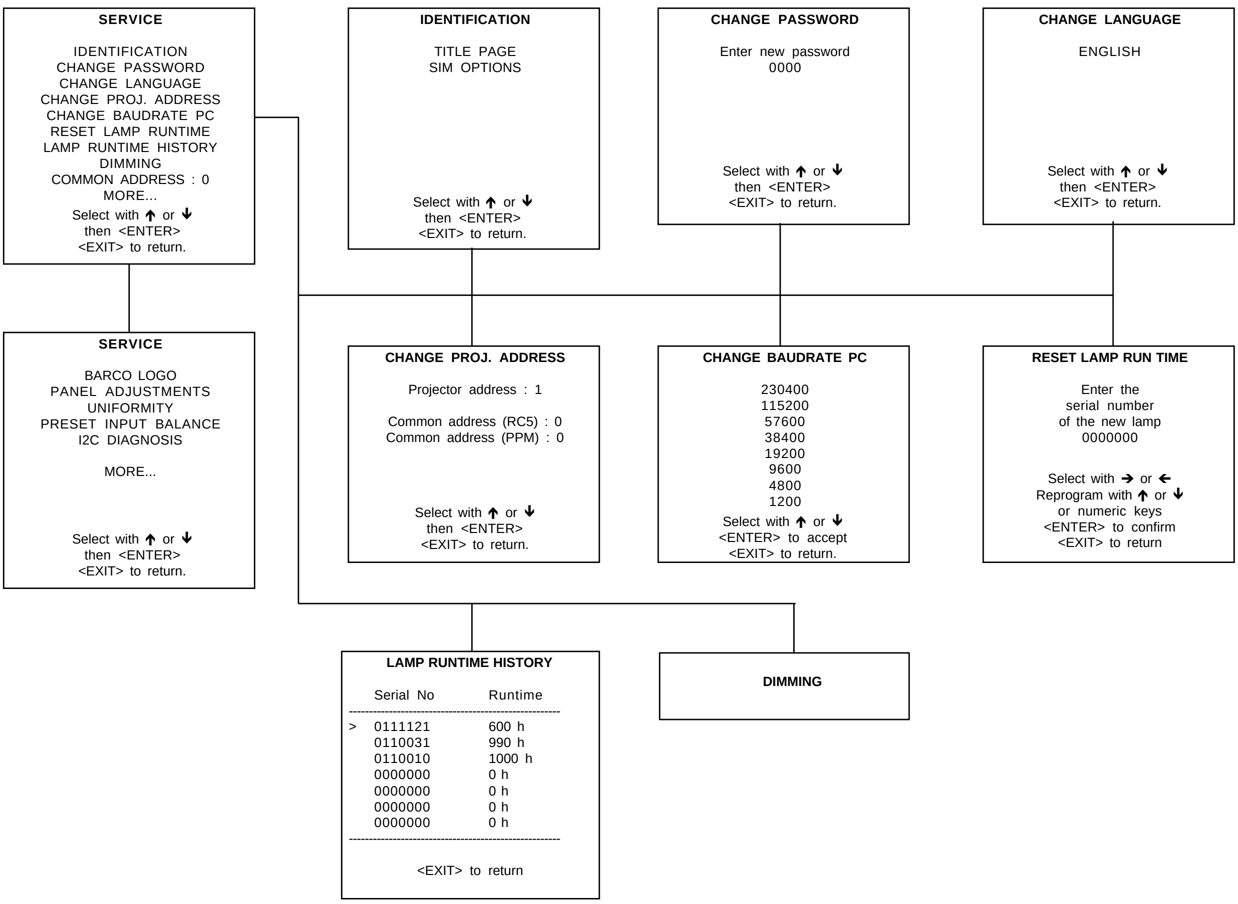
MORE...

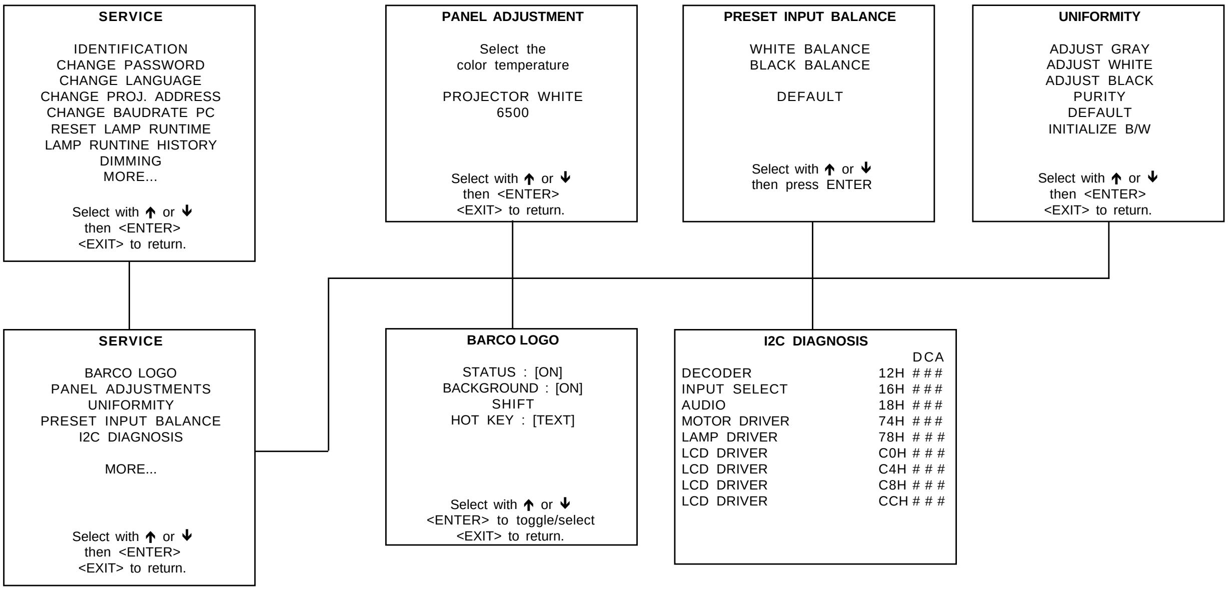
Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 3

Built-up of the service mode.

The service menu is built-up in two parts which are connected together with the 'more' item.
If the desired item is not in the list of the displayed menu, select 'more' with the cursor key and push **ENTER** to display the other items in the service menu.





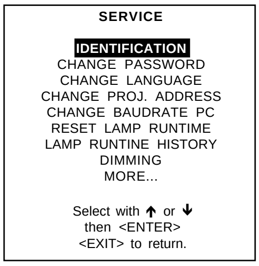
Identification

What can be seen ?

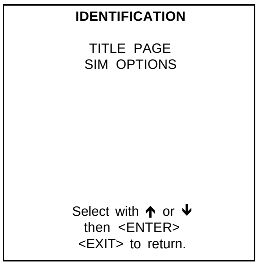
The identification is split up in two different items, title page and Sim options.
The Title page shows the general information of the projector.
The Sim options shows the status of the options.

Start Up

1 Push the cursor key ↑ or ↓ to highlight 'Identification' (menu 1).
2 Press **ENTER** to display the *Identification* menu (menu 2).



menu 1



menu 2

Available items

Title page
Sim options

Title Page

What will be indicated on the title page ?

The following indication are given on the title page :
- type of projector
- projector address
- software version
- installation configuration
- baud rate
- text ON
- projector serial number
- projector run time

Start Up

1 Push the cursor key ↑ or ↓ to highlight 'Title Page' (menu 1).
2 Press Enter to select.
The Title page will be displayed.

IDENTIFICATION

TITLE PAGE
SIM OPTIONS

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

BARCO
REALITY SIM6

Proj. address : 001
Soft. version : 1.0
Config : front/
ceiling
Baudrate PC : 9600
text : ON
Serial no.: 1010200
Run time : 100 h

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Available items

- *type* of projector : BARCOREALITY SIM6
- *software version*
- *Proj. Address* : to change the address of the projector, see Change Projector Address in this chapter.
- *Installation* : possible installations :
  * Front/Ceiling
  * Front/Table
  * Rear/Ceiling
  * Rear/Table

  To change the installation configuration follow the instructions in chapter Installation Guidelines.
- *Baud rate* : transfer speed for communication with an IBM PC (or compatible) or MAC. The baud rate of the projector must be the same as the baud rate of the connected computer. When there is a difference, consult 'Change Baudrate PC' in this chapter.
- *Projector Run Time* : gives the total run time since the first start up. All projectors leave the factory with a run time of approximately 24 hours.
- *Projector Serial number* : indicates the fabrication number of the projector. This number can be useful when calling for technical assistance.

SIM Options

What will be indicate ?

This menu will indicate if the SIM options are installed or not.

Start Up

1 Push the cursor key ↑ or ↓ to highlight 'SIM Options' (menu 1).
2 Press Enter to select.
The SIM options screen will be displayed (menu 2).

IDENTIFICATION

TITLE PAGE
SIM OPTIONS

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

SIM OPTIONS

SOFT EDGE: ON
TDR : ON
TMR : ON
UNIFORMITY : ON
MOT. DIMMING : ON

<EXIT> to return.

menu 2

Available SIM options

- Soft Edge
- TDR : transportation delay reduction
- TMR : true motion reproduction
- Uniformity
- Motorized Dimming

Change Password

How to enable or disable the password function ?

This item is password protected when the password strap is installed.

The password function is enabled when the password strap on the controller module is installed. Consult an authorised Barco service technician to change the strap position.

How to change the password ?

1 Push the cursor key ↑ or ↓ to highlight 'Change password' (menu 1).
2 Press **ENTER** to display the *Change Password* menu (menu 2).
The old password is displayed and can be changed by entering the digit with the numeric keys of the RCU or local keypad.
3 Press **ENTER** to save the new entered password.
Press **EXIT** if no changes have to be made.

SERVICE

IDENTIFICATION
CHANGE PASSWORD
CHANGE LANGUAGE
CHANGE PROJ. ADDRESS
CHANGE BAUDRATE PC
RESET LAMP RUNTIME
LAMP RUNTIME HISTORY
DIMMING
MORE...

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

CHANGE PASSWORD

Enter new password
0000

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Change Language

Start Up

1 Push the cursor key ↑ or ↓ to highlight 'Change Language' (menu 1).
2 Press **ENTER** to display the *Change Language* menu (menu 2).
3 Push the cursor key ↑ or ↓ to highlight the desired language.
4 Press **ENTER** to change the language.
Available languages : English

SERVICE

IDENTIFICATION
CHANGE PASSWORD
CHANGE LANGUAGE
CHANGE PROJ. ADDRESS
CHANGE BAUDRATE PC
RESET LAMP RUNTIME
LAMP RUNTINE HISTORY
DIMMING
MORE ...

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

CHANGE LANGUAGE

English

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Change Projector Address

What can be changed ?

Within the 'Change Projector Address' item, the follow items can be changed :
- Projector address
- Common address

Start up

1 Push the cursor key ↑ or ↓ to highlight 'Change Projector Address'' (menu 1).
2 Press ENTER to select.
The Change Projector Address menu will be displayed.

SERVICE

IDENTIFICATION
CHANGE PASSWORD
CHANGE LANGUAGE
CHANGE PROJ. ADDRESS
CHANGE BAUDRATE PC
RESET LAMP RUNTIME
LAMP RUNTINE HISTORY
DIMMING
MORE ...

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

CHANGE PROJ. ADDRESS

Projector address : 1

Common address (RC5) : 0
Common address (PPM) : 0

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Projector Address

How to change that address ?

1 Push the cursor key ↑ or ↓ to highlight 'Projector Address'' (menu 1).
2 Press **ENTER** to select.
The actual address is filled in.
The first digit is highlighted.

CHANGE PROJ. ADDRESS

Projector address : 1

Common address (RC5) : 0
Common address (PPM) : 0

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

Entering the new projector address

- with the digit keys on the RCU or the local keypad or
- push the cursor key ← or → to select a digit and change the value by pushing the cursor key ↑ or ↓ until the new value is reached. Continue with the other digits on the same way.

Common Address

How to change that common address ?

1 Push the cursor key ↑ or ↓ to highlight the active 'Common Address'' (menu 1).
2 Press **ENTER** to select.

CHANGE PROJ. ADDRESS

Projector address : 1

Common address (RC5) : 0
Common address (PPM) : 0

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

Entering the new common address

Only addresses between 0 and 1 are valid.
- with the digit keys on the RCU or the local keypad or
- pushing the cursor key ↑ or ↓ until the new value is reached.

Change Baudrate PC

Start Up

1. Push the cursor key ↑ or ↓ to highlight 'Change Baudrate PC" (menu 1).
2. Press **ENTER** to display the *Change Baudrate PC* menu. The actual baudrate will be highlighed.
   The following baud rates are available :
   230400/115200/57600/38400/19200/9600/4800/1200
3. Push the cursor key ↑ or ↓ to highlight the desired baudrate.
4. Press **ENTER** to select.

```
SERVICE

IDENTIFICATION
CHANGE PASSWORD
CHANGE LANGUAGE
CHANGE PROJ. ADDRESS
CHANGE BAUDRATE PC
RESET LAMP RUNTIME
LAMP RUNTIME HISTORY
DIMMING
MORE...

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

menu 1

```
CHANGE BAUDRATE PC

230400
115200
57600
38400
19200
9600
4800
1200

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

menu 1

Reset Lamp Runtime

When is it allowed ?

Reset lamp run time is only allowed when a new lamp is installed.

Start Up

1. Push the cursor key ↑ or ↓ to highlight 'Reset Lamp Run Time" (menu 1).
2. Press **ENTER**.
   The following warning will be displayed (menu 2):
   Risk of electrical shock. Reset lamp run time is reserved to qualified service personnel.
   If you are not qualified, press **EXIT** to cancel the reset operation.

```
SERVICE

IDENTIFICATION
CHANGE PASSWORD
CHANGE LANGUAGE
CHANGE PROJ. ADDRESS
CHANGE BAUDRATE PC
RESET LAMP RUNTIME
LAMP RUNTIME HISTORY
DIMMING
MORE...

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

menu 1

```
WARNING

--------------------------------
RISK OF
ELECTRICAL SHOCK

RESET LAMP RUN TIME
is reserved to
qualified
service personnel

<ENTER> to accept
<EXIT> to return.
```

menu 2

Lamp Run Time History

What can be done ?

Getting an overview of the different lamp run times

Start Up

1 Push the cursor key ↑ or ↓ to highlight 'Lamp Run Time History' (menu 1).
2 Press **ENTER** to display the *Lamp Run Time* overview (menu 2).
A listing with the lamp serial number and the corresponding run time will be displayed.
The actual installed lamp will be marked.
3 Press **EXIT** to return to the service mode selection menu.

```
SERVICE

IDENTIFICATION
CHANGE PASSWORD
CHANGE LANGUAGE
CHANGE PROJ. ADDRESS
CHANGE BAUDRATE PC
RESET LAMP RUNTIME
LAMP RUNTIME HISTORY
DIMMING
MORE...

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

menu 1

```
LAMP RUNTIME HISTORY

  Serial No     Runtime
---------------------------------
> 0111121       600 h
  0110031       980 h
  0110010       1000 h
  0000000       0 h
  0000000       0 h
  0000000       0 h

---------------------------------

<ENTER> for detail
<EXIT> to return
```

menu 1

Dimming

What can be done ?

The lamp can be dimmed via the lamp dimming feature or via the optional motorized dimming.

Start Up

1 Push the cursor key ↑ or ↓ to highlight 'Dimming' (menu 1).
2 Press **ENTER** to select.
The dimming menu will be displayed (menu 2).

```
SERVICE

IDENTIFICATION
CHANGE PASSWORD
CHANGE LANGUAGE
CHANGE PROJ. ADDRESS
CHANGE BAUDRATE PC
RESET LAMP RUNTIME
LAMP RUNTIME HISTORY
DIMMING
MORE...

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

menu 1

```
DIMMING

LAMP DIMMING
MOTORIZED DIMMING

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

menu 2

Lamp Dimming

Start Up

1 Push the cursor key ↑ or ↓ to highlight 'Lamp Dimming' (menu 1).
2 Press ENTER to start up the lamp dimming.
3 Push the cursor key ← or → to dim the lamp.

Remark : The projector starts always with full lamp power.

```
DIMMING

LAMP DIMMING
MOTORIZED DIMMING

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.
```

menu 1

Motorized Dimming

Optional

Start Up

1 Push the cursor key ↑ or ↓ to highlight 'Motorized Dimming' (menu 1).
2 Press ENTER to start up the motorized dimming.
3 Use the cursor keys to change the dimming factor or
4 Press ENTER and type in a dimming factor with the digit keys on the RCU and press ENTER again.
Range 3..100
Default : 100

DIMMING

LAMP DIMMING
MOTORIZED DIMMING

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

BARCO logo

What can be done ?

The BARCO logo can be added to the image, in overlay or on a background, on any place on the screen.

How to add the BARCO logo or to change a setting ?

1 Push the cursor key ↑ or ↓ to highlight 'BARCO logo'' (menu 1).
2 Press **ENTER** to select.
The *BARCO logo* menu will be displayed (menu 2) . The actual settings will be displayed.
Within this menu, three toggle settings and a shift control are available.

SERVICE

BARCO LOGO
PANEL ADJUSTMENTS
UNIFORMITY
PRESET INPUT BALANCE
I2C DIAGNOSIS

MORE...

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

BARCO LOGO

STATUS : [ON]
BACKGROUND : [ON]
SHIFT
HOT KEY : [TEXT]

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 2

Available settings

STATUS [ON/OFF]
ON : BARCO logo will be displayed on the screen.
OFF : No BARCO logo displayed on the screen.

BACKGROUND [ON/OFF]
ON : BARCO logo will be displayed on a black background.
OFF : BARCO logo will be displayed without any background.

SHIFT
By pushing the cursor key ↑, ↓, ← or →, the BARCO logo can be positioned anywhere on the screen.

HOT KEY [TEXT/OFF]
OFF : no key on the RCU is used to display the BARCO logo.
TEXT : the TEXT key on the RCU is used to display or to remove the BARCO logo with one single push on this key (only in operational mode).

Panel Adjustments

Warning

Changing these settings may seriously affect the performance of the projector.
All panel adjustments are factory adjusted. If not really necessary, do not touch any of these adjustments. They are useful when a new panel is installed.

Start Up

1 Push the cursor key ↑ or ↓ to highlight 'Panel Adjustments'' (menu 1).
2 Press ENTER to select.
The following warning will be displayed :
Panel Adjustments is reserved to qualified service personnel.
If you are not qualified, press EXIT to cancel the panel adjustments.

SERVICE

BARCO LOGO
PANEL ADJUSTMENTS
UNIFORMITY
PRESET INPUT BALANCE
I2C DIAGNOSIS

MORE...

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

WARNING

PRESET INPUT BALANCE
is reserved to
qualified
service personnel

<ENTER> to accept
<EXIT> to return.

menu 2

Uniformity

Warning

Changing these settings may seriously affect the performance of the projector.

Start Up

1 Push the cursor key ↑ or ↓ to highlight "Uniformity" (menu 1).
2 Press **ENTER** to select.
The following warning will be displayed :
Uniformity is reserved to qualified service personnel.
If you are not qualified, press **EXIT** to cancel the uniformity.

SERVICE

BARCO LOGO
PANEL ADJUSTMENTS
UNIFORMITY
PRESET INPUT BALANCE
I2C DIAGNOSIS

MORE...

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

WARNING

UNIFORMITY
is reserved to
qualified
service personnel

<ENTER> to accept
<EXIT> to return.

menu 2

Preset Input Balance

Warning

Changing these settings may seriously affect the performance of the projector.

Start Up

1 Push the cursor key ↑ or ↓ to highlight "Preset Input Balance" (menu 1).
2 Press **ENTER** to select.
The following warning will be displayed :
Preset Input Balance is reserved to qualified service personnel.
If you are not qualified, press EXIT to cancel the preset input balance.

SERVICE

BARCO LOGO
PANEL ADJUSTMENTS
UNIFORMITY
PRESET INPUT BALANCE
I2C DIAGNOSIS

MORE...

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

WARNING

PRESET INPUT BALANCE
is reserved to
qualified
service personnel

<ENTER> to accept
<EXIT> to return.

menu 2

I2C diagnosis.

What can be done ?

Gives an overview of the correct working of the I²C controlled IC's.

SERVICE

BARCO LOGO
PANEL ADJUSTMENTS
UNIFORMITY
PRESET INPUT BALANCE
I2C DIAGNOSIS

MORE...

Select with ↑ or ↓
then <ENTER>
<EXIT> to return.

menu 1

I2C DIAGNOSIS

		DCA
DECODER	12H	# # #
INPUT SELECT	16H	# # #
AUDIO	18H	# # #
MOTOR DRIVER	74H	# # #
LAMP DRIVER	78H	# # #
LCD DRIVER	C0H	# # #
LCD DRIVER	C4H	# # #
LCD DRIVER	C8H	# # #
LCD DRIVER	CHH	# # #

<EXIT> TO RETURN

menu 2

A STANDARD SOURCE SET UP FILES

name	resolution	Fvert Hz	Fhor kHz	Fpix MHz	ptot	pact	ltot	lact
1600_48V	1600 X 600i	48,040	62,500	135,000	2160	1600	651	600
1600_60V	1600 X 1200	60,000	75,000	162,000	2160	1600	1250	1200
1600_65V	1600 X 1200	65,000	81,250	175,500	2160	1600	1250	1200
1600_70V	1600 X 1200	70,000	87,500	189,000	2160	1600	1250	1200
8514_a	1024 x 384i	43,479	35,522	44,900	1264	1024	409	384
cga	640 x 200	59,924	15,700	14,318	912	640	262	200
compusc4	1024 x 480i	29,945	30,694	39,779	1296	1024	512	480
ed	735 x 480	59,943	31,470	28,638	910	735	525	480
ega	640 x 350	59,702	21,851	16,257	744	640	366	350
ews_50	1280 x 1024	50,000	52,350	87,948	1680	1280	1047	1024
ews_60	1280 x 1024	60,000	63,900	107,352	1680	1280	1065	1024
ews_60v	1280 x 1024	60,282	63,657	110,000	1728	1280	1056	1024
ews_72	1280 x 1024	72,000	76,968	130,076	1690	1280	1069	1024
ews_75	1280 x 1024	75,025	79,976	135,000	1688	1280	1066	1024
ews_85	1024 x 1280	85,024	91,146	157,500	1728	1280	1072	1024
ews_100	1024 x 1280	100,139	107,350	185,5	1728	1280	1072	1024
fmr	640 x 400i	42,323	36,440	28,570	784	640	431	400
fmto_2	640 x 400	55,370	24,370	21,056	864	640	440	400
HD_1080i(*)	1920 x 540i	30,000	33,750	74,250	2200	1920	562	540
hd720p(*)	1280 x 720	60,000	45,000	74,250	1650	1200	750	720
hdmac(*)	1252 x 570i	25,020	31,250	39,125	1252	1024	625	570
inter_gr	1184 x 886	67,170	61,796	92,941	1504	1184	920	886
mac_2	640 x 480	66,667	35,000	30,240	864	640	525	480
mac_3	512 x 384	60,147	24,480	15,667	640	512	407	384
mac_4	560 x 384	60,147	24,480	17,234	704	560	407	384
mac_5	512 x 342	60,158	22,259	15,670	704	512	370	342
mac_6	832 x 624	74,546	49,722	57,280	1152	832	667	624
MAC_7	1024 x 768	74,907	60,150	80,000	1330	1024	803	768
mac_lc	640 x 480	66,619	34,975	31,338	896	640	525	480
mac_por	640 x 870	74,996	68,846	57,280	832	640	918	870
muse(*)	1172 x 518i	30,000	33,750	37,125	1172	1024	563	518
mxga_60	1152 x 864	60,000	54,540	79,410	1456	1152	909	864

Name : name of file, contains the settings
Resolution : image resolution, when followed by ...I means interlaced.

FVERT Hz : vertical frame frequency of the source

FHOR kHz : horizontal frequency of the source.

FPIX MHz : pixel frequency

PTOT : total pixels on one horizontal line

PACT : active pixels on one horizontal line

LTOT : total lines in one field

LACT : active lines in one field

name	resolution	Fvert Hz	Fhor kHz	Fpix MHz	ptot	pact	ltot	lact
mxga_70	1152 x 864	70,012	63,851	94,500	1480	1152	912	864
mxga_75	1152 x 864	75,000	67,500	108,000	1600	1152	900	864
mxga_80	1152 x 864	80,000	76,640	110,362	1440	1152	958	864
mxga_85	1152 x 864	84,999	77,094	121,500	1576	1152	907	864
mxga_100	1152 x 864	100,000	93,000	145,824	1568	1152	930	864
Video525(*)	1302 x 239i	29,970	15,734	32,207	1302	1024	263	239
Video625(*)	1024 x 278i	25,000	15,625	31,984	1310	1024	313	278
pam500	640 x 400	60,000	26,400	22,810	864	640	440	400
pam800	1120 x 375i	44,936	36,443	50,000	1372	1120	406	375
pc98_1	640 x 400	56,416	24,823	21,050	848	640	440	400
pc98_2	1120 x 375i	39,994	32,835	47,840	1457	1120	411	375
pc98_3	1120 x 750	60,000	50,000	78,569	1571	1120	833	750
s1152_66	1152 x 900	66,004	61,846	94,500	1528	1152	937	900
s1152_76	1152 x 900	76,637	71,809	108,000	1504	1152	937	900
SDI_625(*)	675 x 2781	25,000	15,625	13,500	864	720	313	278
SDI_525(*)	675 x 2401	29,970	15,734	13,500	858	720	263	240
sg_50	1600 x 1200	50,000	62,500	130,313	2085	1600	1250	1200
sg_60_1	1280 x 1024	60,000	63.900	107,352	1680	1280	1065	1024
sg_60_2	1024 x 768	60,000	48.780	64,390	1320	1024	813	768
sg_60_3	960 x 680	60,000	43,200	54,432	1260	960	720	680
sg_60_4	1600 x 1200	60,000	75,000	156,375	2085	1600	1250	1200
sunews67	1280 x 1024	67,189	71,691	117,000	1632	1280	1067	1024
sunews76	1280 x 1024	76,107	81,130	135,000	1664	1280	1066	1024
sunxga60	1024 x 768	59,984	48,287	64,125	1328	1024	805	768
sunxga70	1024 x 768	70,041	56,596	74,250	1312	1024	808	768
sunxga77	1024 x 768	77,069	62,040	84,375	1360	1024	805	768
sup_mac	1024 x 768	60,000	48,780	63,999	1312	1024	813	768
svga_56v	800 x 600	56,250	35,156	36,000	1024	800	625	600
svga_60v	800 x 600	60,317	37,879	40,000	1056	800	628	600
svga_72v	800 x 600	72,084	48,080	50,003	1040	800	667	600
svga_75	800 x 600	75,000	46,875	49,500	1056	800	625	600
svga_85	800 x 600	85,061	53,674	56,250	1048	800	631	600
svga_100	800 x 600	100,276	62,973	66,500	1056	800	628	600
vga_72v	640 x 480	72,800	37,856	31,496	832	640	520	480
vga_75	640 x 480	75,000	37,500	31,500	840	640	500	480
vga_85	640 x 480	85,008	43,269	36,000	832	640	509	480

name	resolution	Fvert Hz	Fhor kHz	Fpix MHz	ptot	pact	ltot	lact
vga_100	640 x 480	100,000	52,500	44,520	848	640	525	480
vga_gr	640 x 480	59,941	31,469	25,175	800	640	525	480
vga_txt	720 x 400	70,087	31,469	28,322	900	720	449	400
vga75iso	640 x 480	75,000	39,375	31,500	800	640	525	480
xga_60	1024 x 768	60,000	48,360	64,996	1344	1024	806	768
xga_70	1024 x 768	70,000	57,050	78,044	1368	1024	815	768
xga_70v	1024 x 768	69,705	56,182	74,610	1328	1024	806	768
xga_72	1024 x 768	71,955	58,140	80,000	1376	1024	808	768
xga_75	1024 x 768	75,781	61,080	86,000	1408	1024	806	768
xga75_gs	1024 x 768	74,534	59,701	79,284	1328	1024	801	768
xga_85	1024 x 768	84,997	68,677	94,500	1376	1024	808	768
xga_100	1024 x 768	100,000	80,800	110,534	1368	1024	808	768

B SOURCE NUMBERS 81 - 86 AND 91 - 96

Projector without any 800 peripheral connected.

The source numbers 81 - 86 and 91 - 96 do not correspond to physical inputs. An additional adjustment file can be created for these source numbers. This file can contain different settings. The relationship between sources 1 - 6 and 91 - 96 or between 1 - 6 and 81 - 86 is shown in the diagram below.

source input 1	source number 1 source number 81 source number 91	file A file A' file A''
source input 2	source number 2 source number 82 source number 92	file B file B' file B''
source input 3	source number 3 source number 83 source number 93	file C file C' file C''
	● ●	
source input 6	source number 6 source number 86 source number 96	file F file F' file F''

Follow the steps below to create a second or a third file for sources 1 to 6 :

1. Select the source between 1 and 6.
2. Select the corresponding source number between 81 and 86 or 91 and 96 with the digit keys on the RCU.
3. Enter the adjustment mode and load a corresponding file. Edit this file if necessary.
4. Save the file and exit the adjustment mode.

Projector with a 800 peripheral connected.

Source numbers 91 - 99.

The source numbers 91 - 99 do not correspond to physical inputs. An additional adjustment file can be created for these source numbers (source numbers of the 800 peripheral). This file can contain different settings. The relationship between sources 1 - 9 of the 800 peripheral and 91 - 99 is shown in the diagram below.

source input 1	source number 1 source number 91	file A file A'
source input 2	source number 2 source number 92	file B file B'
source input 3	source number 3 source number 93	file C file C'
	● ●	
source input 9	source number 9 source number 99	file I file I'

Follow the same procedure as for a projector without a 800 peripheral connected.

Source numbers 81 - 86

Only valid if no input module is connected to slot 81 - 86 of a RCVDS05.
The source numbers 81 - 86 correspond to the physical inputs 1 - 6 of the projector.
e.g. When slot 1 of the projector has to be selected, key in source number 81.
The relationship between the sources of slot 1 - 6 of the projector with 800 peripheral is shown in the table below.

source of slot 1	source number 81
source of slot 2	source number 82
source of slot 3	source number 83
source of slot 4	source number 84
source of slot 5	source number 85
source of slot 6	source number 86